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TO USE "THEIR PERSUASIVE POWERS."

THE Journal of Industrial and Engineering Chemistry, published by the American Chemical Society, announces that, in view of increased cost of operation, the publication committee has recently decided to advance its advertising rates 40 per cent., to take effect immediately; and in publishing this statement the Journal appeals to members of the Society to render valuable aid by using "their persuasive powers" in holding all former advertisers, and by urging those not now advertising to become advertisers in the Journal.

The MANUFACTURERS RECORD has not as yet advanced its rates to meet these new conditions, notwithstanding the great increase in the cost of publication of this as of all other papers, but whenever it is compelled to do so, it trusts that it can appeal to its readers, as the Journal of Industrial and Engineering Chemistry has appealed to the members of the American Chemical Society, to use their "persuasive powers" to induce all advertisers to continue to advertise, and to induce those who are not now advertising to use the advertising pages of the MANUFACTURERS RECORD.

If we can have the hearty co-operation of all of our readers in furtherance of efforts to increase advertising and to make advertisers know the value to the readers of the MANUFACTURERS RECORD of these advertisements, we shall be glad to have learned the lesson from Dr. Herty, the brilliant editor of the Journal of Industrial and Engineering Chemistry and formerly president of the American Chemical Society.

Dr. Herty is somewhat new in the newspaper business, having accepted the editorship of the publication of the Society less than a year ago; but he is setting a good example to other publishers in facing the issue of higher cost of publication and the necessity for higher advertising rates, and in appealing to the readers of his publication to co-operate in holding and securing advertising in his publication. Success to him in his excellent campaign!

JUDGING by some samples of ministerial graduates sent forth by a Baptist seminary in New York State, the sooner that institution eliminates its pro-German influence the better for it, for the intelligence of its graduates and for such influence as they are supposed to be able to exert.

"GERMAN BARBARISM NOT BARBARISM TO THE GERMANS."

"YOU must not imagine that the barbarism of the Germans in this war is barbarism from the German viewpoint," was a statement made some days ago by a wealthy retired German-American to Mr. Wm. C. Seddon, a Baltimore banker.

This German-American, a personal friend of Mr. Seddon's, in discussing the barbarism of the German army as mentioned by Mr. Seddon, said:

"While I recognize, now that I understand the civilization of this country, that Germany is guilty of barbarism, I also understand, because I was born and raised in Germany, that the German people do not look upon their acts as barbaric. I will illustrate the whole case by my own experience. When a young man at school in Germany I beat up and maimed for life another student, in order to take from him something that belonged to him, but which I wanted. When I went home my parents patted me on the shoulder and commended me for having fought for what I wanted, although I maimed the boy in getting it. They were merely following the universal thought and custom in Germany, where in family life, in schools and in government, people are taught that might is right and they must take whatever they desire without regard to how they may maim or injure other people in the getting of it.

"This spirit has run through the whole of German life. It was the spirit which dominated Germany when I grew up forty years or more ago, and it is the spirit which explains why the German army can be guilty of what you and the people of this country call barbarism, without their own recognition of the fact that they are doing anything that is barbaric or anything that has not been bred into their very being through their whole life.

"Years ago, after I had reached manhood, I came to this country, and after I had caught an understanding of the life and atmosphere of America I saw things in an entirely different light. I then realized that I had committed a crime in maiming a school boy friend for my own personal gratification, and for 22 years I have, as some slight atonement, been supporting that man and his mother. Had I continued to live in Germany, however, it would never have occurred to me that I had done wrong, or was under any obligation whatever to look after the man whom I had thus so seriously injured. You can see, therefore, that the viewpoint of the people of Germany is diametrically opposed to the viewpoint of the people of this country. What we in this country call barbarism is not so regarded by Germans, who have been trained from infancy to think and to act exactly as they are doing in this war. They commit acts which Americans (and I am now an American in thought) call great crimes, but the Germans do not look upon them as crimes, but as the natural carrying out of the life they have been taught to lead."

This personal statement of an intelligent man, born and reared in Germany, but now living in this country, retired from active business, illuminates the whole situation and shows that until this spirit of

barbarism, trained from infancy into Germans in Germany, has been conquered there can be no peace for the world. For 25 years or more the training of the German people in schools, in family life, in military life and in government affairs has been to take what you want regardless of how you get it, whether by brutal physical force or in other ways. Here is the German philosophy which has made that nation, once honored and respected by all the world, a nation of barbarism; a nation so trained to barbaric deeds that the world shudders as their fearful work in Belgium and France is understood.

This personal testimony is in direct line with the teachings of some of their great philosophers and writers, such, for instance, as Nietzsche, one of the foremost philosophic leaders of Germany, some of whose statements, taught in the schools of Germany, were quoted in the MANUFACTURERS RECORD last week, as follows:

"The book also held that any natural inclination was all right, because it was stimulated by nature, and that anyone who curbed such inclinations was weak and unfit. And so Berlin changed into one of the most immoral capitals in Europe, and so illegitimate children were made legal by the Imperial State. That is to say, their production was encouraged. It meant more soldiers for the Kaiser and his war lords. And they saw to it that the book was thoroughly read by the educated classes."

How shall we deal with a country whose teachings are so contrary to all civilization and which, alone, lead to such fearful crimes as German soldiers have been guilty of by authority of German leaders?

Germany was not always so. Once its people were God-fearing and honest-hearted, and from such have come many splendid men and women in this country of German descent; but Germany has for 40 years drunk at a poisoned spring of a false education which has changed the Germany of former years to the Germany of today—a poisoned spring which made agnosticism and atheism rule where fear of God had prevailed, which developed barbarism where civilization had been strong, which brought forth immorality where morality had held sway. False education in schools and universities guided and controlled by Prussian militarism had gradually poisoned the whole life of Germany and was rapidly spreading into the theological schools of this country through German influence. That is why the Germany once so highly honored among the nations of the earth is now a hissing and a by-word wherever true-hearted, God-fearing men and women live.

IT has been brought to our notice in several instances that a concern styling itself the Chicago Circulation Bureau is soliciting subscriptions for the MANUFACTURERS RECORD and making collections from subscribers.

The MANUFACTURERS RECORD desires to make it known that this so-called bureau is not authorized to either solicit or collect on our account, and is entirely unknown to us.

"WE DEDICATE OURSELVES TO OUR JUST AND RIGHTEOUS CAUSE."

AT the recent annual convention of the Northern Baptists, composed of representatives of that denomination throughout the North and West, resolutions, broad in their scope and striking in their statement of the world situation, were adopted.

Some of the statements made are well worth reproduction here—and, indeed, in every paper—for they specifically deal with the fact that this country is at war for humanity, liberty and democracy, and that we are engaged in a conflict forced upon us against the nation's will, but forced upon us because we were driven into it in our effort to stop the savagery which has been shown by Germany in its warfare.

Among the statements made in these resolutions were the following:

Whereas, our country is at war in defense of humanity, liberty and democracy; and whereas, we were forced into this conflict despite the exhaustion of every honorable means by our peace-loving President to save non-combatant life and stop savagery without resort to arms; therefore,

Resolved, That we, delegates to the Northern Baptist Convention assembled in Cleveland, Ohio, May 15-22, 1917, representing a million and a half members of Baptist churches, do solemnly pledge to the President and Government of the United States our whole-hearted allegiance and support. Loving peace and abhorring war, having no selfish ends to seek, at the call of country, and in response to the dictates of our own consciences, we dedicate ourselves to our just and righteous cause. There are things dearer than peace or life, and for these we stand:

To maintain the sacredness of treaties, honor and humanity as against the doctrine of military necessity;

The freedom of the seas as against piracy and murder of innocents;

Democracy as against autocracy as essential to secure the right of all nations, great and small, to live their life in freedom and security.

This states the case very clearly, and deserves the commendation of every honest-hearted man in the country.

THE NATIONAL NEED FOR RECLAMATION OF THE SOUTH'S WET LANDS.

THE importance of draining the swamp lands of the South forms the basis of a letter from New Orleans by Frank G. Carpenter, which appears in various newspapers of the country.

Mr. Carpenter is making a visit through the South for a series of articles on Southern developments and opportunities, and he is strongly impressed with the potential value as farmlands of the millions of acres of wet lands in Louisiana and throughout the South. The wet lands of Louisiana were built up by the washings brought down by the Mississippi and fed by rivers from 26 States of the North, and they are lands of marvelous fertility. When drained these wet lands, that now bring from \$5 to \$25 an acre, will be worth from \$100 to \$300 an acre. Even such prices, representing the present market value of Louisiana lands, are low in comparison with the lands of Egypt and Holland. In the valley of the Nile farms bring as much as \$750 an acre, and in Holland from \$600 to \$1000 is paid for lands, none of which are superior in fertility to the lowlands of Louisiana.

The attention of the country was first called to these conditions by the MANUFACTURERS RECORD many years ago. With repeated presentation of the facts as to the great wealth these untitled acres contain, there has been given increasing recognition of the importance to the entire country of the complete development of the alluvial lands of the South. This recognition is not as yet universal, however, for the amount of drainage work done to date is small in comparison with the vast acreage of undrained lands.

The drainage and cultivation of these rich Southern lands is a matter of importance to the entire nation, for in the millions of acres of now undrained lands which the South contains there are food potentialities sufficient to stay the hunger of the entire nation.

The utilization of the wet lands of the South is not a local issue. It is something in which the entire country is interested. There would be no food problem today if even all the wet lands of Louisiana were by some magic to be planted in food crops tomorrow.

ROAD BUILDING AND MUNICIPAL WORK.

ROAD-BUILDING as an economic factor in the life of a nation in time of peace becomes all the more vitally important in time of war. We have as a nation begun during the last few years to realize that our impassably-bad roads are a serious menace to the prosperity of the country in peace and would be a real menace in case of war, and the building of roads even as a military necessity has been urgently argued for some years. The war upon which we have entered makes all the more important that at the present time road-building as a military policy should be vigorously prosecuted, and road-building materials should be one of the favored freights, just as coal and iron and steel now are.

There has been a suggestion that road-building should be lessened in order to permit the labor engaged in this work to be turned into farming, or into other employments. This is a mistake. Road-building is vitally important. Under the strain that is being put upon the railroads of the country their facilities for handling traffic are wholly inadequate to the needs of the times, and many passenger trains must be discontinued for the purpose of using passenger locomotives for freight traffic. Of necessity this will increase the demand for transportation of people and freight by automobiles and motor trucks. There is no other way in which the shortage of railroad facilities can be so quickly and largely supplemented as through the automobile and the motor truck on good roads. Water transportation will be developed, but this is a matter of slower growth, as it will take a longer time to provide the boats and make some much needed river and terminal improvements to enable water transportation to take the place of railroads.

In the building of good roads, however, every mile of completed road benefits the farmer, increases his ability to expand his agricultural activities, increases the possibility of profit in farming, makes country life more attractive to the laborer and enables the farmer to distribute his products to the consumer more quickly and at a lower selling expense.

This situation will grow more and more acute; farming will be made more and more undesirable, and the inability to transport foodstuffs and of business people to travel over the country will be increased unless the building of good roads goes on steadily and aggressively.

It is almost universally recognized that in many lines there must be a change, and that luxuries of many kinds must to some extent be eliminated or lessened, for the business of the country now is war, and all the energy of the nation must go into the things that enable us to wage war most successfully. But the necessary activities of the country which make for its advancement and the health of its people must go forward aggressively. This means a larger building of roads, the construction, wherever it can be done to advantage, of sewerage systems and water-works plants, and kindred enterprises which mean the betterment of health and the advancement of community life.

It would be folly to shut off work of this kind, and the railroads and the Government should see that it goes forward uninterruptedly, and, indeed, on a more active scale than heretofore.

That the entire force of the nation, to an extent as large as may be needed, shall be given directly to the creation of war activities and the things that make for the maintenance of the supply of food and munitions is, of course, universally understood. But this should not for a moment militate against road-building and municipal improvements that look to health and better living conditions, or to the other things which round out national life and make it the stronger and the better able to produce and distribute foodstuffs to maintain health and to supplement by good roads the steadily-growing shortage in railroad transportation. These things are vital to national life, and to the very maintenance of the war. They are the essentials, not non-essentials. They are not like the unnecessary furbelows of fashion, the hats and the bonnets and the fancy shoes and jewelry which can, if necessary, be cut out to advantage in such a time; but these foundation activities of the business life of the country, rightly understood, should be vigorously and urgently

followed up wherever road-building work or other work of this character is needed, and that means to a large extent throughout the entire country.

In referring to some discussions in a few communities as to the advisability of stopping the construction of improved roads now under contract, the American Highway Association points out that there is no good reason for closing down this kind of work. It is stated that, while it is true the prices of all materials have risen since the contracts were made, engineers are generally recommending a moderate increase in contract prices to meet this condition without putting any burden on the taxpayer. The labor situation, however, is a more difficult problem, but the Association recommends that this can be met by the simple, inexpensive remedy in most cases of extending the time limit for the completion of the work. Bearing upon this, the statement says:

"In a few months the army draft will have been made, and the nation's industries will have become adjusted to war conditions. During this transition period labor will be scarce, transportation disorganized and conditions such that no contractor suffering from them can be equitably held to time limits agreed upon when there was little probability of war. If the contractor is allowed to proceed slowly during this period, with such labor as he can obtain at reasonable prices and such materials as he can persuade the railways to deliver, and is not required to speed up the work until conditions become settled again, the work will be carried on most economically, and the only way in which the public will suffer will be through a delay of a few months in the completion of the improvement. This temporary inconvenience is of no importance compared with that following the complete stopping of construction by abandoning contracts or forcing contractors into bankruptcy by insistence on time limits impossible to meet now."

SERIOUS PURPOSE OF MEN IN TRAINING CAMPS.

MR. ROY G. BOOKER, who has for some years been one of the representatives of the MANUFACTURERS RECORD in the South, is now in training at Fort McPherson, and in the course of a letter to the office he gives an interesting view of the feeling of the men who are at the training camp. In this letter he says:

Since I have been in this camp I have been especially impressed with the seriousness with which the men have been taking to their work. Every man here, at least in my company, seems to realize that he is here for a purpose, and they are not only working, but are thinking and studying as only men of the calibre that have been selected to come to this camp can think and work. The last thing one hears as he goes to bed is some zealous fellow discussing "squads right"; "left front into line"; repeating the rules that a sentinel has to commit to memory before he takes his post; two of them busy signalling each other from their bunks with the semaphore system which every man in the Army has to learn; or, in the morning, even before 5.30, some energetic chap is up going through the arm signals which are used instead of oral commands in extended order work. We are going steadily from 5.15 A. M. until 9.30 P. M., the evening being given over to study periods. The hours are long and the men are only allowed to go into Atlanta once a week, but little they care, for they realize they are here for serious business and they like to spend as much time at it as possible. If anybody thinks that America is not taking the state of war seriously, then he should leave these members of the officers' reserve corps training camps over the country out of his calculation—if this camp at Fort McPherson can be considered a criterion.

We believe that Mr. Booker's statements as to the seriousness which runs through Fort McPherson Camp applies to the other camps throughout the country, for, as far as we can learn, the men who have gone into these training camps fully realize the seriousness of the work upon which they have entered. They have gone at this work with a profound sense of duty. They are not moved by any spirit of adventure, but they are carrying into this training a realization that what the country owes to its own life and to civilization can only be expressed through the individual action of the men who make up the nation.

WILL THE STEEL CORPORATION BUILD A SHIPYARD ON THE GULF COAST?

IT is possible that the urgent suggestion of the MANUFACTURERS RECORD that the United States Steel Corporation should recognize its position as trustee to the nation in the enormous holdings of iron ore and coal which it has in Alabama and develop these on a scale commensurate with the world's needs is to be fulfilled, and in connection therewith we hope that the other suggestion, that the Steel Corporation should co-operate in shipbuilding on the Gulf Coast, is to be carried out.

In the Wall Street Journal of Monday last it is stated: "In the financial district it is reported that the Steel Corporation will build a large shipyard in the South through its subsidiary, the Tennessee Coal, Iron & Railroad Co." According to this report, the finance committee has already made appropriation for the building of a ship plant in the South as well as for the extension of the prospective plant in the East.

Until the Steel Corporation is ready to make an official announcement as to the projected improvements which Judge Gary recently stated were to be made with a view to endeavoring to do the utmost that the Corporation could do to meet the needs of the hour, no official information is available, and the only reply that the MANUFACTURERS RECORD is able at the moment to secure from anyone connected with the company is a statement to the effect that the "Wall Street Journal report is unauthorized." This, however, does not say that the Wall Street Journal report may not be true, even though unauthorized. We trust that it will soon prove to be true, and that the Steel Corporation will develop its Alabama properties on a scale in keeping with the magnitude of its holdings of ore and coal, and in connection therewith establish a great shipbuilding plant on the Gulf Coast.

A special dispatch to the Manufacturers Record states that Judge Gary, chairman; Henry C. Frick and George W. Perkins, directors, and executive committee of the United States Steel Corporation will spend Friday and Saturday in the Birmingham district inspecting the properties of the Tennessee Coal, Iron & Railroad Co.

The Manufacturers Record believes that this visit will be followed by an announcement that the Steel Corporation has decided to make extensive enlargements in the operations of its great properties in Alabama. Such a decision would be of inestimable value not alone to the South, but to the country, and, perchance, to the world's civilization itself.

SAUCE FOR GOOSE AND GANDER ALIKE.

NO better proof of the fertility of Duval county land, nor better proof of its productivity could be given than that embodied in the recent showing made by County Commissioner D. C. Brown on his Atlantic Boulevard farm, from ten acres of which he has just completed gathering of a crop of Irish potatoes.

Mr. Brown received last week a check for \$5428.80 in payment for those potatoes he shipped to Northern markets.—Jacksonville Times-Union.

Will the United States Department of Agriculture now kindly berate the North for not raising its own potatoes? Why should the railroads be burdened with carrying potatoes to the North when the South was officially told that if it did not raise its own foodstuffs it might become necessary to refuse to let the roads be used to carry corn and provisions from the West to the South?

HOW HIGH WILL IRON GO?

WHEN the possibility of pig-iron advancing in the Pittsburgh district to \$50 a ton was first suggested by some iron people, many thought that it was a wild and visionary idea, but a dispatch from Pittsburgh to the Daily Iron Trade Report indicates that some people in that district are now looking forward to the possibility of \$75 iron. We hope it will not go there.

IT BEFOULS ITS OWN NEST.

THE Baltimore Sun, having translated into English and published some of the statements which might be called "near treason" of the German Correspondent of this city, the latter undertakes to make a reply through the advertising columns of the Baltimore News, but its reply is worse than the original sin.

In the course of its statement, the German Correspondent said:

"If The Sun were honest or even half-way decent in its sentiments, it would realize that the German-American citizen is in a cruel position. America, though now his home and the native land of his children, cannot altogether and at once erase from his memory the recollections of his youth and the call of his blood. On the other side his kith and kin have for near unto three years been fighting for a cause that they hold holy. Here his just sympathies have been made the cause of attacks upon his character and upon his loyalty. Small wonder that he should become embittered and find life a burden. A burden under which many have broken and departed ere time."

And much more of the same kind.

Will the Correspondent tell the public why the German-American citizen is in a cruel position. If he is an honest American, he must of necessity side with America. If he is a true hearted, honest man, hating murder and lust and crimes of all kind, he must of necessity hate what has been going on in Belgium and France.

The Correspondent says "on the other side his kith and kin have for near unto three years fought for a cause that they 'hold holy.'"

Was it a "holy" cause to invade Belgium and wreck and ruin that country, and outrage women and commit unspeakable crimes upon its children?

Was it a "holy" cause to sink the Lusitania and send to untimely graves the hundreds of innocent women and children on that ship?

Was it a "holy" cause which made Germany ready for the war and ready to invade other lands when no other land was ready for war, proving to every man of sufficient intelligence to be out of an insane asylum that it was Germany who was the aggressor and that it was Germany which began the war, for the people of no other country would have been foolish enough to begin a war without being prepared?

Do the German-Americans of this country "hold holy" these crimes which have stained the German career and which have marked that country as sunken into barbarism deeper even than that which has for centuries cursed Turkey.

Do the German-Americans of this country "hold holy" a cause which called forth a ferocity, a frightfulness, a bestiality such as the world had never before known?

Surely the German Correspondent has slandered the citizens of German birth of this country in even intimating that they could have sympathy with Germany even if their "kith and kin" could "hold holy" the atrocious doings Germany has been guilty of.

Have the German-Americans, according to the statement of the German Correspondent, become embittered because their sympathies with German atrocities have been criticized?

Indeed, do German-Americans hold that they have had "just sympathies" with Germany in this campaign?

If German-Americans are such as the German Correspondent says they are, then they are far worse people than we had supposed.

We know that there are here and there Germans, not Americans, though living in America and claiming American citizenship, who have been deep dyed in unholy sympathy with the unholy work of Germany.

We know that here and there are to be found men and women living in America, but not of America, who have been willing to sell their souls and their honor for commendation of German officials, but we resent the charge of the German Correspondent that decent, honest, God-fearing German-Americans as a whole have been guilty of having had sympathy—not just, but unholy sympathy—with the crimes of Germany in this war.

The German Correspondent has slandered every decent, honest, liberty-loving man and woman of

German descent in America who hates the crimes which have staggered humanity of which Germany has been guilty.

Since the day the United States entered the war there has been only one line dividing the people of this country. That line separates the patriots and the traitors. It matters not where born, whether in this country or elsewhere, every man and woman who claims American citizenship, but who is not to the utmost giving his or her undivided moral and financial support to this Government, is a traitor.

HIGH COST OF FARM PRODUCTS IN NORTH CAROLINA.

A STATEMENT issued by the North Carolina Agricultural Extension Service, showing the prices paid by merchants for farm products in some of the leading cities of North Carolina, gives the figures paid for No. 2 white corn as ranging from \$1.75 at Winston-Salem, the lowest price quoted, to \$2 per bushel, at Greenville, the highest price quoted, the general range of prices being from \$1.80 to \$1.90 per bushel. Other farm products are quoted at prices somewhat commensurate with these high prices.

In the past it has been considered that about \$1 per bushel was a good, high figure for Southern corn buyers to have to pay, but these prices are almost double that, and indicate the extremely high cost of producing this year's cotton crop by all farmers who have to purchase their grain supplies. They indicate also the necessity of raising in the South the largest possible crops of corn, beans, cowpeas, potatoes and vegetables generally. The soy beans are quoted in this price report as selling at from \$4 to \$4.50, and cowpeas from \$2.65 to \$3 per bushel.

One interesting but unfortunate fact is brought out that Western creamery butter sells at a very much higher price than the creamery butter produced locally. For instance, Western creamery butter was bringing in Asheville last week 55 cents a pound, while North Carolina creamery butter commanded only 41 cents. In Charlotte there was a difference of 5 cents; in Durham, 10 cents, while at Fayetteville and Lumberton prices were the same. With the advantages of North Carolina for dairying, that State ought to be able to produce as good butter as any part of the West, and it should be so made and so packed that it will command as high prices as Western butter.

What is true in North Carolina as to the prices of corn and beans and butter and other things is true to a large extent in the entire South.

UNIVERSITY MEN AGAINST DRINKING.

MR. W. T. CHILDS of Baltimore has furnished to The Methodist of this city a statement from which the following interesting facts are taken:

A "Committee of Seventy-one" of the graduates of Yale University, with ex-President William H. Taft as chairman, recently sent postcards to all Yale graduates asking the following questions, and the results were as stated, namely:

Question—Should class reunion funds be expended for liquor?

Answer—Yes, 220; no, 8213.

Question—Should liquor be served at reunion headquarters?

Answer—Yes, 583; no, 7796.

In these days of readjustment this shows at a glance how 8439 Yale graduates have already lined up on this patriotic move.

Similar movements have already been started in other universities as a direct result of the lead taken by Yale.

In these figures is found strong evidence of the growing opposition in this country to liquors as a beverage. The movement is steadily spreading, and will continue to spread until the whole business covering the manufacture and sale of alcoholic beverages in the United States is abolished by law, and, as it is feasible legally to do this as a war measure, it should certainly be done at the present time.

THE COTTON CROP OUTLOOK.

THE condition of the cotton crop on May 25 as reported by the United States Department of Agriculture was only 69.5 per cent., or 8 points lower than on the same date last year, and 10½ points lower than the same date of 1915. It was, however, only 4.8 points lower in 1914. With the smaller acreage, with less fertilization and the low average at the present time, the outlook for the cotton crop is unfortunately much too low for the best interests of the country. Cotton is, however, such a remarkable plant that it is barely possible that much of the backwardness of the present may be overcome before the season is too late.

It is not yet safe to count that we shall have a yield only in keeping with the low average of May 25 and of the reduced acreage, but up to the present time everything is against the crop. The season has been very backward, fertilization has been less favorable than formerly and the plant started under unfavorable conditions generally.

A crop lower than the actual needs of the world for cotton would be a disaster to the country far greater than to the South itself, for high prices would help to offset in the South the smaller production, but the world would suffer a loss in the reduction of its cotton supply. Instead of antagonizing cotton and seeking to limit its production, as agitators have often unwisely done, the supreme value to civilization of the cotton crop of the South should be recognized. In years past the South at times produced more cotton than the world would consume at profitable prices. In doing that it injured itself, because unless it sells its cotton at a fair profit it is hampering its own progress. It is important that the South should diversify its agriculture, that it should raise foodstuff sufficient to meet its own needs in addition to the millions of dollars' worth of foodstuff which it ships to the North and West, but it should not neglect its cotton crop, for not only is the lint of infinite value in all of the ramifications of trade, but the seed crop has now become more generally recognized as a food product essential to the welfare of the whole country.

TEXAS' PROFITABLE PEANUT CROP.

TEXAS is expected to plant more than 300,000 acres in peanuts this year. There has been a tremendous increase in the acreage devoted to peanuts in Texas, and 27 oil mills are now equipped for crushing peanuts. The average yield in East Texas last year was 42 bushels to the acre. The oil companies expect to pay from 70 cents to \$1 per bushel. At 70 cents a bushel the price received for an acre of peanuts would thus be \$29.40, and with peanut hay bringing \$14 per acre, the total average return is \$43.40.

With the greatly-increased demand for vegetable oils there has grown up a steady and reliable market for peanuts. This condition must continue at least until some time after the war, and at the present prices peanuts are found to be a very profitable and desirable crop from every standpoint. The peanut is particularly adapted to light sandy soils, and in East Texas and elsewhere throughout the South where favorable soil conditions exist there has been greatly-increased attention given to the crop, with decided profit to those who have engaged in their production.

PATRIOTISM IN PUBLICITY WORK.

EXTRACTS from President Wilson's proclamation of April 15, 1917, have been incorporated into a handsome hanger which the Link-Belt Company of Philadelphia, Chicago and Indianapolis has had printed and copies of which, it is announced, will be mailed to any who send a request to either of the Link-Belt offices. In order to give widespread publicity to the appeal of the President, the Link-Belt Company has furthermore made up a page advertisement containing the wording and having the form of the hanger, the advertisement to run in all publications on the Link-Belt's list, in place of the

advertisement of the company's business which usually occupies this space.

With the same patriotic spirit the Youngstown Sheet & Tube Co. of Youngstown, Ohio, strikes a high keynote in its page advertisement in the MANUFACTURERS RECORD of this week. This advertisement refers to the registration of the young men of the country this week for service in our army and navy, and urges that unlimited money be provided to back up the personal work which these young men will give to the country. Particularly does the announcement appeal for subscriptions from current savings, and points out that investment in the Liberty loan will prove to every American a personal benefit as well as a patriotic duty, and at the same time will create thrift and promote a sense of duty performed.

The readiness with which many of the big business houses of the country are utilizing their advertising spaces to co-operate with the Government is a splendid example of the broad, underlying patriotism that permeates all branches of our industrial activities, and which quickly manifests itself when the need occurs.

MARGARINE AND BUTTER IN DENMARK.

(Extract from United States Department of Commerce Reports.)

IN 1880 began the development of the co-operative dairies. In 1914 there were 1168 of these and 335 private dairies. About 85 per cent. of the milk of Denmark is delivered to the co-operative institutions, each of which handles from 2,300,000 to 6,000,000 kilos of fresh milk per annum. About 6200 persons are employed by the dairy interests, an average of four persons for each plant.

The latest statistics estimate that Denmark contains 1,300,000 milch cows, and the annual production of milk is about 3,500,000,000 kilos that reach the dairies and the trade, and 3,300,000,000 kilos that go to the workers or are consumed at the points of production and do not come to the market.

The quantity of milk obtained and the amount of butter churned are constantly increasing. In 1899 the amount of milk from each cow averaged 2161 kilos, and the quantity of milk required to make 1 kilo of butter averaged 25.3 kilos; in 1906 the respective figures were 2357 and 25.6; in 1909, 2566 and 25.6, and in 1914, 2644 and 25.4.

The annual value of dairy products is distributed as follows: Butter, \$65,000,000; cheese, \$20,000,000; cream, \$4,000,000, and skimmed milk, etc., \$19,000,000. Of the 117,000,000 kilos of butter made annually, 95,000,000 kilos are exported.

The consumption of margarine as a substitute for butter is steadily increasing, and it is remarkable to notice how little the Danes care for their own dairy product. In 1915 about 55,100,000 kilos of margarine were consumed, and in 1916 the figure was estimated at 60,000,000 kilos. The price of this prime article has advanced considerably.

In this country we hamper the margarine industry by an unwise tax put on it not for revenue, but to protect the high price of butter.

THE SOUTH'S RESPONSIBILITY TO THE NEGROES.

WE are glad to see that leading papers throughout the South are taking the position so frequently advanced by the MANUFACTURERS RECORD that the migration of negroes to Northern and Western industrial centers will not cease until the negroes in the South are given better opportunities, housed better than at present, and until the rates of wages are somewhat commensurate with the rates of wages, counting the difference in the cost of living, in different sections in the North and West.

The Houston Post, one of the leading papers of the South, in the course of a lengthy editorial on this subject, says:

When the South takes as deep an interest in the negro free as his owner took in the well-being of his slave, there will be no problem and no exodus.

The South will have to face this problem frankly and sensibly. It will have to discover and acknowledge its shortcomings and take such steps as may be necessary to bring it to a full sense of its moral obligations as well as its material welfare.

The suggestion that the South should take as deep interest in the well-being of the negro today as the old South gave to the care of the slave states the case very clearly. Any man familiar with the conditions prior to the Civil War knows that, with rare

exceptions, the slave owners recognized their responsibility for the moral and physical well-being of the slaves. Relatively, the slaves were better housed, better fed, and, so far as the white people are concerned, received more personal religious instruction and training than the negroes today receive from whites. Slave owners to a very large extent gave attention to the spiritual welfare of the slaves, and though many of these people were just from barbarism in Africa, hundreds of thousands of them were not only civilized, but evangelized, and became devoted, consecrated Christians. They could be trusted to the utmost in the protection of the families to which they belonged. Many of them were proud to boast of the social and business standing of their owners, and their devotion to their owners and their families and their good behavior in every respect, even during war time, when a large proportion of Southern men were drawn away from home into the army, will forever remain to the credit of the negro race and a demonstration of its inherent potentialities. However much we may regret the lessening of the moral and physical stamina of a large proportion of the negroes of the South since the war, we must recognize that there is some justification of this by reason of the false teachings which they had during the ten years of reconstruction after the war and to the bad treatment which many of them received long after that.

The South must recognize its moral responsibility to the negro race, and it must at the same time fully understand that, while the negroes can be made of very great economic value to this section, and, under proper training and education, can, as the Post says, be made to double their efficiency in productive power, the questions at issue must be considered by the white people of the South with a full realization of the economic and moral side and responsibility to a weaker race, even though that weaker race may, through many of its members, be guilty of many crimes.

The white man's burden in the South is to develop, morally, spiritually and physically, the negro race, and to train it to the highest efficiency. This can be done only by the earnest work of the best people of the South. It must be done, or the negro will become an ever-increasing liability instead of an ever-growing asset of this section.

THE YAM.

THE Atlanta Journal publishes an editorial entitled "In Praise of the Yam." Why anyone on earth who had once tasted a yam, as all Georgia people have done, should ever think it necessary to write anything in praise of that which is so perfect we cannot understand. The yam is above and beyond praise. No language ever invented by man can do it justice, and if there are in the South any poor, benighted souls who do not know the yam, they are too far gone mentally to be influenced even by an editorial "In Praise of the Yam."

There are, of course, a few unfortunate human beings condemned by some sad fate to live in sections which do not know the yam. The gospel of the yam might be preached to them if they could be reached by the Journal's editorial, but if once the North and West came into a full realization of the yam as a foodstuff, there would be such a scramble for the entire crop at such ever-advancing prices that the people of the South would not be able to keep any for their own consumption.

THE LIVING VS. THE DEAD.

A NUMBER of American papers have indicated their unbelief in the statement put forth in Europe that the Germans strip the bodies of their dead soldiers behind the firing line, fasten them into bundles of three or four with iron wire and then send them to a factory for the production of fat. The horror of this charge is so great that many American people have refused to believe it, but in view of the infinitely greater horrors committed upon the bodies of the living by German soldiers, we do not see how anyone need be shocked at the report that they should thus use dead bodies.

WEIGHED IN THE BALANCE AND NOT FOUND WANTING.

As our hearts grow sad with the thought of the dangers to which millions of the very flower and full fruition of the civilization of this nation will have to face on the battlefields of Europe, or else on the battlefields of our own land should Germany not be defeated in Europe, let us console ourselves with the thought that these men, in their unselfish devotion to the highest ideals of mankind, are setting an example to all others which should call forth a new consecration of the lives of the people of this country to the advancement of civilization and of Christianity.

We had been growing too cold and indifferent to the struggle of others. We were in danger of becoming selfish and self-centered, of seeking only our ease and comfort, while others perished because we were slow to hear duty's call, but now we have heard the call and America is dedicating itself to the task of saving civilization.

The soldiers who go forth to battle in this war from motives as high as those that sent the Crusaders of old to the Holy Land should stimulate every man and woman in this country into higher and holier living, and into a fuller consecration of life to the welfare of others. "It is not all of life to live" in this brief span allotted to us here; we may be enabled to accomplish in a few short years more by sacrifice and service than by long years given to our own selfish ends. The soldiers, and the mothers and the fathers and other loved ones who are giving up these soldier boys to battle for the right, will indeed be rededicating their lives to the call of humanity. There will be many a broken heart. Many of us shall know sorrow, many shall have to tread the path of life alone; but when duty calls we must all follow.

As the soldiers gather for their training camps, as the physicians and the nurses and the ambulance drivers and the stretcher-bearers go forward willingly to offer their lives for others, surely the people of this country should feel that they are standing on holy ground, and with uncovered heads offer their homage to the spirit of self-renunciation and consecration to the welfare of others which is being born anew throughout the land by reason of what these soldiers and physicians and others are so nobly doing.

In view of the sorrows of the hour and of the hours that are yet to come, let us as a people take courage and thank God that in the day when He called into service those who have been selected for this heroic work the men of America when weighed in the balance were not found wanting.

INCREASING COST OF LAKE ORES STRENGTHENS THE SOUTH'S POSITION IN IRON-MAKING.

THE annual report of the trustees of the Great Northern Iron Ore Properties, referring to the operations of the past year and the outlook for the present, states that for 1917 the price at Lake Erie ports for Bessemer ore will be \$5.70 per ton and for non-Bessemer ores \$5.05 per ton, representing an increase over 1916 of \$1.50 a ton for each of the two grades.

With the gradual decrease in the metallic content of Lake ores, which has been in evidence for some years, the cost of Bessemer ores at the Lake district would be in the neighborhood of \$10 per ton for the pig-iron produced. To this must be added the cost of shipment when the ores are handled by rail to other points.

With these high prices of ore and the remarkably high prices of coke now prevailing, Southern iron-making concerns owning their own raw materials have an exceptional opportunity for large profits, since their ores and their coke will cost them much less in comparison with the ores and the coke of Eastern furnaces. The difference between the cost to such Southern plants as compared with the cost to Eastern furnaces has been greatly widened during the last twelve months. The opportunity should be utilized by the South to the utmost extent possible to increase its production of iron. This industry can now establish itself in the South on a broader and safer basis than ever before.

[From the New York Tribune.]

Germans Took all Women of Noyon in Their Retreat.

Letter to Red Cross Tells Horrors of French Town After Teutons Went.

Washington, June 2.—A letter from a well-known American woman, who is now in France, to the Red Cross was made public today. In an automobile loaded with supplies for starving and helpless women and children, she entered Noyon twenty-four hours after the Germans had evacuated the town, following the French artillery. This is her description of conditions:

"There is a small canal in Noyon, and that canal had been dammed by the boches till it overflowed and the outlet stopped, so that when certain parts were blown up the whole town was inundated, which was the only reason that it is not a heap of ruins, as water reached the mines that were placed everywhere before they were blown up.

"Most of the houses are destroyed, or partly so, and every stick of furniture has been taken out, and that which could not be moved has been destroyed or made useless.

"A city of some seven or eight thousand inhabitants, they found over twelve thousand there, as all the inhabitants of the neighboring villages had crowded in.

"Those who were in the cellars came out gradually, and a tale of horror was unfolded that bars none that we have heard since the beginning.

"Every girl between the ages of fourteen and thirty was carried away by the boches nine days before the retreat began, and many of the younger women left are about to become mothers of boche babies. One case after the other was more pitiable than the last. One woman was asked if the two little children who were clinging to her skirts were her grandchildren, and she answered: 'The mother has been taken by the boches and their father is at our front, and, being my neighbors, I wish to be able to show him his children on his return, but I do not know where he is.'

The last paragraph of this dispatch to the Tribune tells nothing new, but it is necessary to repeat these things that American people may get a faint glimpse of the horrors which have marked Germany's invasion of France and Belgium. These horrors are so indescribable that Americans can scarcely believe that such beasts live in human form, and yet it is known that the reality surpasses what has been published.

CEMENT SHIPMENTS OF LATE YEARS GREATER THAN PRODUCTION.

AN advance statement, issued by the United States Geological Survey, giving statistics of the Portland cement industry, shows that in 1916 the shipment of 94,552,296 barrels, valued at \$100,014,882, was the highest on record, while the production for that year of 91,521,198 barrels was second to that of the record output of 1913, when 92,097,131 barrels of cement were produced. This report states that the stocks for 1915 have been revised slightly by the manufacturers.

Excepting in a few places, where top prices were received in 1915, higher prices for cement prevailed throughout the United States last year. The average factory price per barrel in bulk at the mills was \$1.058, an increase of 19.8 cents, or 23 per cent., over the 86 cents the average received per barrel in 1915. The average price received by mills in most of the Southern States last year was a little less than \$1 a barrel.

Of natural and puzzolan cements, the combined production in 1916 was 842,137 barrels, valued at \$430,874, compared with 793,541 barrels, valued at \$398,428, in 1915.

Portland Cement Statistics for Some Southern States.

Maryland, Virginia, West Virginia:		1915	1916	Per Cent.
		(barrels.)	(barrels.)	Increase.
Shipments	3,166,721	3,315,323	4.7	
Production	3,193,806	3,189,586	*1	
Stock	369,913	235,511	*34.6	
Tennessee, Alabama, Georgia:				
Shipments	3,069,770	3,541,572	14.3	
Production	3,010,037	3,502,259	16.4	
Stock	279,445	237,396	*15.0	
Total for United States:				
Shipments	86,891,681	94,552,296	8.8	
Production	85,914,907	91,521,198	6.5	
Stock	11,462,523	8,360,478	*27.1	
*Decrease.				

*Decrease.

The total annual shipments of cement of late

years are greater than the annual production, and the shipments of 1916 show a greater percentage of increase over 1915 than the production increase for the same period, while the amount of stock on hand at mills has decreased over 27 per cent. in that time.

"NO ONE IS ENTITLED TO THAT WHICH HE DOES NOT USE."

"IF they do not utilize their property, the time may not be far off when our national needs will require confiscation and Government cultivation. No one is entitled to that which he does not use."

The foregoing statement is an extract from a public letter recently issued by Secretary Franklin K. Lane of the Department of the Interior. Secretary Lane was writing specifically in regard to the failure of some large land owners in the reclamation regions of the West to use the land which they owned, and emphasizing the fact that "loyalty and patriotism, as well as economic necessity," demanded that these lands should be put under cultivation, he closed his letter with the statement quoted.

The significance of this letter is very much broader and more far-reaching than has been generally appreciated. If it be true, as Secretary Lane so emphatically says, that "no one is entitled to that which he does not use," so that uncultivated land must by reason of loyalty and patriotism as well as economic necessity be put under cultivation, the same demand can be made with equal force upon the utilization of raw materials of all kinds. Has an individual or a corporation the right to own a vast body of minerals without utilizing the property, especially in these times, to the utmost extent that these materials can be made advantageous for the use of the nation and of the world?

Secretary Lane's position is a very advanced one. He may be ahead of the times. But things move rapidly in these days, and it is not at all improbable that there will develop in this country a very strong sentiment which will compel owners of properties to develop them, or else they may be taken over or confiscated by the Government. As radical as such a course as this would be, no one can say that it will not come about, for this country is in a task of such magnitude that individual preferences will have to give way before national necessities; and it may be true, as Secretary Lane has suggested, that those who do not utilize their properties for the benefit of the public will find that the Government is inclined to take charge of them for the public good.

We need not attempt to shut our eyes to the seriousness of the suggestion. Secretary Lane evidently did not make this statement without appreciating its full significance.

MONUMENT FOR A GENIUS WHO KEPT A COUNTRY HOTEL.

THERE should be an inspiration to the hotel men in the smaller towns of the South in the fact that a number of traveling men have banded themselves together to raise funds for a monument to Capt. P. E. Matheson, late of Snow Hill, Wilcox county, Alabama.

Captain Matheson and his wife for many years kept an unpretentious country tavern at Snow Hill, but so well did they look after the comforts of their guests that their place became famous among the traveling men of that section, and any who found themselves near Wilcox county at the week end were sure to go to Matheson's to remain over Sunday. Rooms were well kept, the beds sunned and aired, and the table was always loaded with the choicest country foods, deliciously prepared.

A monument to a country hotel-keeper will be unique. The very suggestion of such a monument should deeply impress the hotel-keepers of the rural districts and inspire them to a study of the methods Captain Matheson employed.

AN ATLANTA BANKER'S ADVICE TO HIS SAVINGS DEPOSITORS.

THE Central Bank and Trust Corporation of Atlanta, through its president, Asa G. Candler, urges the depositors in its savings department to withdraw their entire savings in that bank, amounting to \$2,000,000, and invest the full amount in Liberty Loan bonds. This is quite contrary to the advice of many other savings bank people, who feel that it would be wiser for savings bank depositors to use only a portion of their accumulated savings deposits for the purchase of bonds, and to borrow money with which to pay for additional purchases, taking the ground that to as large extent as possible bonds should be paid for out of the savings of the next few years rather than out of the accumulated earnings of the past.

President Candler in his announcement makes the following statement, which has been sent to all of the depositors in the savings department of the Central Bank and Trust Corporation which he controls:

To Our Savings Depositors: This is the most expensive letter I ever wrote in my life.

If it does what I hope it will do, it will cost the Central Bank & Trust Corporation \$2,000,000 of savings deposits which you and several hundred other loyal friends of the bank have entrusted to our care.

But in this grave hour of our country's peril, I feel that it is my duty to cast aside any thought of personal interests and think only of my country.

So I am writing to ask you to take the money you have deposited in our savings department and buy Liberty bonds.

I have subscribed for the bonds personally and for the various business enterprises in which I am interested. I have asked all the employees of all these enterprises to buy Liberty bonds, and I have urged that every man and woman working for the city of Atlanta buy them.

They are not only the safest investment on earth, but every man and woman who buys one does a patriotic duty only second to the young men who offer their lives for Liberty's cause.

After June 15, when the subscription books for the bonds close, I will feel like taking off my hat and saluting every man, woman and child wearing a Liberty button which each bond purchaser will receive. A Liberty button is a badge of courage—of patriotism.

The investment of your savings now entrusted to our care in Liberty bonds means that you transfer this trust from our bank to your country. Rather than stand in my country's way when funds are needed to back up the real sacrifices to be made by millions of young men in the trenches, I would close up our bank and quit business.

We will be very glad to tell you how Liberty bonds may be purchased and attend to every detail for you.

I want you to know that I appreciate the confidence you have placed in us and if we can be of any assistance to you in the future in caring for your savings, please feel that it will be a pleasure for us to serve.

While President Candler's motives are patriotic to the extreme, we question the wisdom of the advice he has given to his savings depositors. The money on deposit is not cash lying idle in his vaults. In order to permit the depositors to draw it out he would have to sell the bank's securities or call in loans, and neither is a desirable proceeding at present.

We believe that President Candler would do his depositors and the country a greater service if he would urge his depositors to invest to the fullest extent possible in Liberty loans and offer to finance them through payment of these loans rather than have them use their cash deposits for that purpose. Nevertheless, no one can fail to commend the spirit of his letter and the patriotism which breathes through every line of it.

THE SOUTH SHOULD BUILD AIR CRAFT.

THE MANUFACTURERS RECORD in a recent editorial suggested the organizing and establishment of plants in the South for the manufacture of heavier-than-air flying machines. Interest in the question has been aroused and information is being sought in the South regarding this industry. But this section will have to hustle if it wants to lead in this new field of manufacturing, for already the more progressive automobile manufacturers of the Middle West are at work along this line.

One concern, the Packard Motor Car Co. of Detroit, has been for some time developing an aero-

nautical branch in connection with its automobile and motor-truck business. Mr. Joy, who was president of the Packard Company when the European war began, realized the importance of the air service, and became convinced that aircraft quite probably would prove to be the determining weapon in the great struggle.

Meanwhile, the Packard Motor Car Co. commenced the development of an aeroplane engine that should be equal, if not superior, to the best aircraft motors in war service in Europe. For more than a year research and experiment on such an engine has been carried on by J. G. Vincent, vice-president of engineering, assisted by W. B. Stout, chief engineer of the aircraft division. The first twin-six aircraft motor of the larger type was turned out of the experimental laboratory in January. It developed 225 horse-power on the dynamometer test. Army aircraft engineers have been present at recent tests of it, and all indications are that it will prove a superb engine in every respect.

ANSWERED THE CALL OF THEIR COUNTRY.

FROM the staff of the Manufacturers Record, in the order of their enlistment, the following men entered the nation's service in its fight for its own life and for world civilization:

A. Sylvester Edmonds, Troop A, Maryland National Guard.

Stanley M. Bouis, Coast Artillery.

Wesley A. Glendinning, Fifth Maryland Infantry.

Albert V. Draper, Officers' Reserve Training Corps, Fort Myer.

Roy G. Booker, Officers' Reserve Training Corps, Fort McPherson.

C. Jerome O'Donnell, Fifth Maryland Infantry.

THE SOUTH MAKING A HEAVY CONTRIBUTION TO THE NATION'S FOOD SUPPLY.

NEARLY 25,000 carloads of vegetables have been shipped from the Southern States up to and including May 29, 1917, according to statistics compiled from a recent market report issued by the Department of Agriculture. The rest of the country outside of the South up to this date had shipped in the neighborhood of only 2000 cars of vegetables. Included in these shipments were 7117 carloads of Irish potatoes, 1797 cars of early cabbages and 5027 carloads of new onions. Moreover, during the crop season Florida has shipped North and South over 20,000 carloads of oranges and grapefruit.

This is one illustration that the South contributes to the food supply of the nation and is not to be wrongly judged if it buys some of its food requirements from other States. Every section of our country is more or less dependent upon some staple crop that has to be purchased outside, but there is no other part of the country that can produce from its lands a crop that furnishes both food and raiment to the extent of the South's cotton.

The accompanying table is a compilation of the

statistics given by the Department of Agriculture on car-lot shipments of vegetables made this season up to May 29.

UNDUE SPECULATIVE ADVANCES IN PRICES.

WHILE natural conditions of supply and demand in foodstuffs and in manufactured products are such as to justify a large advance over prices prevailing a few years ago, and while the inflation due to our super-abundance of gold and to the Government's enormous issue of bonds under way and impending necessarily combine to advance prices, it is nevertheless true that many people are taking advantage of the situation and putting prices up far beyond what they should be even under the conditions named. In this time of war, instead of a scramble being made by people to enlarge their profits, the struggle of the country should be to maintain business activity with a minimum of profit as compared with the volume of trade. This is not a time for gouging, not a time when a man should expect to make more than normal profits, and, indeed, the man who can maintain his business, even though he makes no profit during this war period, should feel that he is greatly blessed.

There never was a time in the world's history when unselfish devotion to the welfare of the Republic was more needed than at present, and when men should forget themselves in seeking to advance the nation's welfare and the saving of civilization. In such times, however, there will be, as there have been in the past, men who are ready to go to the extreme in order to try to increase their own individual profits at the expense of the public. This may result in compelling the Government to control to a large extent much of the business of the country as well as its food supply in order to prevent the gouging which is here and there in evidence.

POTASH.

THOMAS D. McELHENIE of Brooklyn, in a letter to the New York Times, suggests that a new source of potash could probably be developed by the utilization of corncocks, the ashes of which are said to contain a high potash content. He states that before the development of the potash mines at Stassfurt, Germany's supply of potash was secured from oak wood ashes, and as the ashes of corncocks are richer in potash than oak ashes, he proposes the establishment of plants at a few shipping points in the corn belt where corn is shelled for shipment and the cobs furnish the fuel, so that the ashes would be there at practically no cost.

Of course, the amount of potash secured from corncock ashes would be small in comparison with the quantity used in this country, but in these times every available source that offers an opportunity for increasing this necessary plant food should be investigated. Potash is now being secured in this country from alunite in the West, kelp or seaweed, and as a by-product in the manufacture of cement and in iron-making. The South in some of its iron ores can, according to experts, secure enough potash as a by-product to pay for smelting the ore, leaving the pig-iron as clear profit.

VEGETABLES.

TOTAL CAR-LOT SHIPMENTS AS REPORTED TELEGRAPHICALLY TO UNITED STATES DEPARTMENT OF AGRICULTURE UP TO MAY 29, 1917.

States.	New potatoes.	Strawberries.	Tomatoes.	Asparagus.	Early cabbage.	Celery.	Lettuce.	New onions.	Total cars.
Alabama	330	191	...	...	86	...	...	...	597
Arkansas	1	1,031	...	...	...	...	...	...	1,032
Florida	3,995	...	3,508	...	267	*167	...	...	8,077
Georgia	97	...	...	...	...	...	...	...	97
Kentucky	...	149	...	...	...	...	...	...	149
Louisiana	352	1,099	...	...	118	...	...	117	1,686
Maryland	...	207	...	...	...	...	...	...	207
Mississippi	18	91	...	...	191	...	...	...	380
Missouri	...	273	...	...	...	...	...	...	273
North Carolina	77	704	...	...	...	...	...	...	781
South Carolina	1,435	...	...	94	190	...	161	...	1,880
Tennessee	...	1,612	...	...	...	...	3	...	1,615
Texas	822	123	...	...	867	...	...	\$4,910	6,712
Virginia	...	901	...	...	88	...	13	...	1,002
Total South	7,117	16,381	13,598	194	11,797	*167	1357	5,027	124,529
Total United States except South	164	1236	(1)	1427	1642	(1)	1449	(1)	11,913

*Reports to May 22, 1917. †Partially incomplete.

‡Exact total not available. (Last year 6910 cars of new onions were shipped in whole country.)

§Averaging 530 crates per car instead of 464 crates.

ATLANTA'S 40-ACRE COTTON WAREHOUSE.

THE warehouse constructed by Mr. Asa G. Candler, under the name of the Atlanta Warehouse Company, now covers 40 acres of floor space, with 20 acres of additional floor space under ground. It has a total capacity of 250,000 bales and its approximate cost up to date is about \$2,000,000. Additions are being made constantly, therefore it is not known what its ultimate capacity will be, but no large or specially important increase, however, is under contemplation at present. This warehouse is built of reinforced concrete and is absolutely fire-proof. It is now under guard by United States soldiers, as it is being used as a Government supply depot.

SOME PROBLEMS WHICH PUZZLE NEWS-PAPERS.

W. G. COUTTS, Big Stone Gap, Va., in a letter to the MANUFACTURERS RECORD, repeats a suggestion which he has recently made in regard to the desirability of having every member of Southern commercial organizations subscribe to the MANUFACTURERS RECORD, so that they may be in touch with what the South is doing. In his letter, Mr. Coutts says:

Please let me suggest to you that you try out a movement to make it convenient for the secretaries of the boards of trade and chambers of commerce of our Southern communities to lend some effort to helping get your magazine before the progressive citizens of the South. The May 24 issue should, by all means, be read by every greater South booster, and if I were a paid secretary I surely would devote some of my spare time to encouraging my citizens to subscribe for your paper and keep in touch with the big things taking place.

Mr. Coutts' suggestion is a good one, but, unfortunately, we are constantly laboring under great difficulties in carrying it out. Some days ago Congressman Rainey of Illinois, holding up before Congress a copy of the MANUFACTURERS RECORD, praised it as the best arranged paper he had ever seen, and stated that it was so valuable that he was sure that every manufacturer and contractor in the country would gladly pay \$100 a year for it rather than do without it. Because of its great value and the belief that they would pay \$100 a year for it, he thought that it was an illustration of the fact that the newspapers would not have to bear any additional cost of the proposed increased postage tax.

We wish it were true that the contractors and the manufacturers of the whole country were willing to pay \$100 a year in order to get it; but we find it, like all other newspapers do, a rather difficult proposition to induce some men to pay \$4 if they can beg or borrow it from some neighbor, or can walk into some club or commercial exchange every week and read it, in order to save spending the 8 cents a week which it would cost them to have it come direct to their office.

When human nature deals with a newspaper it can many times show forth very great smallness. A man who will buy half a dozen cigars a day will claim to be too poor to subscribe to newspapers which are really necessary to his material and his religious activities, just as the man who wastes many an hour in idleness often claims to be too busy all day to read his Bible; or, as a Southern Governor recently wrote of himself, "too busy to say his prayers or read his Bible," though professing to be an active Christian.

TRYING TO TELL EXPERTS HOW TO DO THINGS.

THE MANUFACTURERS RECORD is in receipt of a letter in regard to shipping matters, in which it is said:

The perfectly obvious thing is, of course, not seen. The one immediately available protection is to hold ships until a number can start out together, properly convoyed. The Secretary of the Navy tells me that the war vessels are all engaged in more important work. I am hanged if I can see anything more important, just now, than protecting

our merchant ships. But, if the Navy can give no protection, then, in heaven's name, let the shippers be sane enough to sail only in groups and with at least a sea-going tug as scout. Think it over and give the thing a boost.

If it were not for the fact that there are people in this country who know absolutely nothing about shipping or conveying ships who have been thinking along the line of this writer, it would hardly be necessary to give space to this suggestion. If every man who has been thinking that every ship ought to be convoyed, or that ships should sail in fleets and be conveyed, would talk for one minute to the heads of the great navies of Europe as well as of the navy of this country, he would see the utter impracticability and impossibility of doing it. But in a time such as this every man seems to think that he is competent to rush in and run the war game, even though he has no knowledge whatsoever of the problems which are facing those who are handling to the best possible advantage this situation, and who know the inside facts as no one else can know who does not take the trouble to inform himself.

Views of a Purchasing Agent for 40 Southern Cotton Mills.

Greenville, S. C., May 29.

Editor *Manufacturers Record*:

I enclose herewith my check for \$4, covering one year's subscription to the MANUFACTURERS RECORD. I take a good many technical papers, but believe that the MANUFACTURERS RECORD covers a field not touched by any or all of the other trade journals.

G. G. SLAUGHTER,

Purchasing Agent.

As Mr. Slaughter is purchasing agent for about forty cotton mills, he is in a position to know the value of the MANUFACTURERS RECORD in buying mill supplies of all kinds. The list of mills is as follows:

Alice Mills, Easley, S. C.
Belton Mills, Belton, S. C.
Brandon Mills, Greenville, S. C.
Brogan Mills, Anderson, S. C.
Calhoun Mills, Calhoun Falls, S. C.
Cherokee Spinning Co., Knoxville, Tenn.
Clinton Cotton Mills, Clinton, S. C.
Cohannet Mills, Fingerville, S. C.
Conestee Mills, Greenville, S. C.
Courtney Manufacturing Co., Newry, S. C.
Duncan Mills, Greenville, S. C.
Easley Cotton Mills, No. 1, Easley, S. C.
Easley Cotton Mills, No. 2, Liberty, S. C.
Easley Cotton Mills, No. 3, Liberty, S. C.
Fountain Inn Manufacturing Co., Fountain Inn, S. C.
Franklin Mills, Greer, S. C.
Georgia Cotton Mills, Griffin, Ga.
Glenn-Lowry Manufacturing Co., Whitmire, S. C.
Grendel Mills, Greenwood, S. C.
The Hartwell Mills, Hartwell, Ga.
Hemitage Cotton Mills, Camden, S. C.
Issaqueena Mill, Central, S. C.
Judson Mills, Greenville, S. C.
Katrane Manufacturing Co., Greenville, S. C.
Lois Cotton Mills, Douglasville, Ga.
Mills Manufacturing Co., Greenville, S. C.
The Mollohon Manufacturing Co., Newberry, S. C.
Ninety-Six Cotton Mills, Newberry, S. C.
Norris Cotton Mills Co., Catechee, S. C.
Oakland Cotton Mills, Newberry, S. C.
Pelzer Manufacturing Co., Pelzer, S. C.
Pendleton Cotton Mills, Pendleton, S. C.
Pendleton Manufacturing Co., Autun, S. C.
Phoenix Mills, Phoenix, Md.
Poinsett Mills, Greenville, S. C.
Rabell Manufacturing Co., Selma, Ala.
Republic Cotton Mills, Great Falls, S. C.
Riverside Manufacturing Co., Anderson, S. C.
Simpsonville Cotton Mills, Simpsonville, S. C.
Toxaway Mills, Anderson, S. C.
Union Bleaching & Finishing Co., Greenville, S. C.
Warren Manufacturing Co., Warren, Md.
Watts Mills, Laurens, S. C.
Williamston Mills, Williamston, S. C.
Woodside Cotton Mills, Greenville, S. C.

Zone It to Death.

[Financial America.]

If the zone system in postage is good, let us have all that is possible of it.

Why stop at a 500 or a 700 mile limit? Why not make each State a zone within itself? Then we might have 48 little postal zones. If anybody wishes to carry the idea to its fullest flower the zone could be brought

down in time to the limits of the county, the township or the city.

It certainly has been scandalous that persons could send second-class matter through the mails without paying something close to first-class rates on it. Some of the publishers actually have been able to make money by this oversight of the government. Some of them have been putting out magazines that are read by tens of thousands of persons, hundreds of thousands of persons, millions of persons, that are as well known in Tacoma as in Tampa or Bangor as in San Diego.

It isn't right that national manufacturers, makers of everything from a needle to an automobile or a giant crane should be able to reach all America through such channels and that makers of clothing and sellers of foods should be able to address all the western world so easily. The proper thing is to make the manufacturers spend more money. The harder we make it for the producer or the manufacturer to dispose of his goods the better.

What we need in this country is a Balkans, a commercial Balkans on a magnificent scale. We should have something such as we had in the early days of the Republic when one State put up a tariff wall against its neighbor so that New Jersey shouldn't sell any of its pesky goods in Delaware and New York shouldn't invade the sacred territory of Connecticut and so on.

Those were the happy days. It is too bad that trade languished and didn't revive until the trade zone was abolished.

But why not revive it? Mr. Burleson, Mr. Kitchen and other eminent statesmen are strong for the Balkanizing of American business through the zone postal system.

It may almost kill the patient but it will please the professor.

We're Coming, Father Joffre!

[Crowley (La.) Signal.]

The other day, while crossing the river, the great French general, Joffre, got his first view of New York city, and dispatches say that he was dumbfounded; that he answered questions with monosyllables, but looked and looked and looked.

He well knew the beauty and magnitude of Paris. He had a high conception of the greatness, the strength, the seriousness of great London. Here, now, before him, was the metropolis of the New World, and it made him gasp.

Back and forth before him in the harbor ran a myriad of craft of every description, from mudscrew to ocean greyhound. In any one of those great 30 and 40-story stone buildings before him could be hidden a Paris or London block of structures. The inimitable roar of 7,000,000 of people came to his ears. Here was solidity, here enterprise, power, greatness nowhere else on earth to be found. Nothing spoke of antiquity, or conservativeness, or indifference. It was all a vast monument of innovation, activity and force.

A picture of the nation sprang into the old warrior's mental vision.

The land of Washington and Lincoln; A nation born in the name of liberty, saved in the name of equality, justice and progress! A people as solid as these enormous piles of stone and steel that rival the Seven Wonders of the World. A people who harness the Niagara Falls, who chain the mighty Mississippi, who rear a Chicago, a Baltimore, a San Francisco, from amid the smoking ashes; a people who wed Atlantic with Pacific, when centuries' ingenuity have failed; a people of greatest railroads, schools, libraries, churches, hospitals, colleges and all public buildings; a people who meet catastrophe with invention; a people who become brothers after Appomattox; a people who, when rights of liberty and equality are endangered, rise as a clan of giants to do or die. And shoulder to shoulder they stand with France.

The grand old Frenchman had been wine, dined, toasted on both sides, saluted on all sides, honored in every way, by Government and individual. He had seen into the heart of the American people and discovered a loving friend and his emotions sometimes overcame him. He now beheld the towering strength of the nation's metropolis, understood what France's ally is, and was speechless. Discovery of great facts has that effect upon great men.

South's Ability to Supply Abundance of Lumber for Ships Completely Demonstrated

The publication last week of many telegrams from leading lumber and shipbuilding concerns in the South, pointing out the ability of this section to supply an abundance of lumber for ships and to turn it rapidly into ships to meet the acute needs in supplying foodstuffs and munitions to the Allies, has attracted very general attention in Washington and elsewhere. This was the first full announcement to the country that the proposal of General Goethals, to seriously cut down the program for wooden shipbuilding, was vitally wrong, and that in his poetic fancy of seeing the birds nesting in the trees he made a mistake which reflected upon all else that he said.

We are glad to know that members of the Shipping Board and other Government officials have fully appreciated the good work done by the MANUFACTURERS RECORD in so quickly disproving General Goethals' statements by showing that the South could provide an abundance of lumber, and that Southern shipyards could turn out ships rapidly enough to help meet the needs of the hour if given the orders by the Government. This has had a marked effect in Washington, and will, we believe, result in the working out of some system which will enable the South to do its full share in supplying ships, for both wooden and steel ships are needed to the utmost extent of our building capacity.

The Government cannot afford to hamper in any way the ability of the country to turn out ships.

Money is not the issue.

It is not a question of what ships will cost, but how rapidly can they be built.

Every yard capable of building ships, whether steel or wooden, should be backed to the limit of the Government's financial strength without regard to the question of actual cost of construction, provided the work is honestly and rapidly done.

We give some additional telegrams and letters received from the South which came too late for use last week.

Mr. F. A. Eustis of the United States Shipping Board, Emergency Fleet Corporation, in a letter to the Manufacturers Record referring to the discussion of the necessity of building both wooden and steel ships, in our last issue, writes:

"I am glad to note the comprehensive grasp of our national problem which your article shows, and I am particularly interested in the canvass of the lumber supply situation which you made so promptly and so effectively. While I have known these facts, I am very glad to see them thus clearly brought to the attention of the public."

General Goethals Invited South to See Wooden Shipbuilding Conditions.

Orange, Tex., June 1.

Editor Manufacturers Record:

We received your message of the 28th, and replied as follows:

We hesitate to disagree with any statements made by as eminent an authority as General Goethals, but we have been furnishing pitch pine for ocean-going tugs, barges, schooners and drydocks for the past thirty years, and can show you instances of vessels eighteen years old with timber as sound today as when built. Pitch pine runs largely to heart, and our further experience is that timbers dressed at the mills as manufactured are acceptable to builders and no trouble at all found in shrinkage. There is plenty of pitch pine tributary to the Gulf ports to supply all the needs of a reasonable number of shipyards at every seaport. If quick action is necessary, and the Government really expects vessels for service this year or within twelve months, then a liberal wooden-ship program is a wise course. There are five shipyards here actively engaged and others contemplated. One yard alone has launched three ships within the past five months, and their program calls for a launching each six weeks throughout balance of year. This activity on the part of shipbuilders in the South who are able to turn out vessels within the required time, it appears to us, is entitled to the earnest consideration of all concerned before placing a ban on wooden ships.

which we beg to confirm.

In due course of time we received the New York

papers and read General Goethals' remarks as made at the American Iron and Steel Institute banquet, and regretted very much that he should cast aspersions at wood and wooden ships.

Possibly we made ourselves plain in a message to Mr. R. H. Downman, chairman of the Advisory Lumber Committee of the Council of National Defense, on this matter. We quote the message:

What effort is being made to counteract General Goethals' famous bird-nesting-in-tree speech at the Steel banquet in New York last week? We have in mind interesting various chambers of commerce in the South in the matter and requesting them to take up with their Senators and Congressmen in a vigorous protest. You know from practical experience that the pitch-pine mills capable of furnishing lumber for wooden vessels carry not over two weeks' supply of logs, but only require seventy-two hours in which to furnish timber from tree to car or shipyard—timbers suitable for shipbuilding, all dressed to size and ready to put in place. We have had thirty years' experience in furnishing ship timber and know. We believe the South is entitled to some consideration. There are five shipyards here, and their program will call for a number of wooden ships this year. We invite General Goethals to come to Orange and familiarize himself with the business which he is now ridiculing; likewise see the boats under construction. We believe we can refer you to an expert in wooden-ship building in New York who can undoubtedly explain matters to General Goethals. Would he be interested in photographs of ships under course of construction and other data?

One concern in Orange, we are told, will soon have an investment of \$1,000,000, with seven keels laid constantly. Another concern has the nucleus of a larger shipyard started. The Orange Maritime Corporation will lay at least two keels. Not Government boats, perhaps, because under the lump-sum contract these embryo shipyards cannot bid. We say "embryo shipyards" because the Northern and Eastern papers have so referred to them; but many an embryo affair has finally resolved itself into a real, active concern. It would seem to us that the South is entitled to a bit of the prosperity that the East has been enjoying. The sawmills of the South are as patriotic as the steel mills in the East, but, for one concern, we do object to the steel people absorbing all of the center of the stage.

We honestly believe that if General Goethals would take the time to come South, come to Orange, if you please, and see the ships that are building and get first-hand information, it would be valuable.

If the birds are nesting in the trees from which wooden ships are to be built, then it is simply a lack of information on their part, because 72 hours is all the time that is required from the moment you shoo the birds out of the tree tops until a timber, dressed to the proper size, is either put alongside a shipyard in Orange or loaded on a car at some other mill for this or some other seaport for shipbuilding.

Nothing is said about the ore, nor the time consumed in getting it ready for use for building ships. It was an unfortunate remark, and we believe that anything your wonderful paper can do to counteract the prevalent opinion that wooden ships are impractical and that a wooden program is useless, and that the Government can't get the wooden ships, would be doing the Government a favor.

F. H. FARWELL.

Under Favorable Conditions, South Could Furnish Lumber for Half the Ships Required.

[Special Dispatch to Manufacturers Record.]

Jasper, Fla., May 30.

We understand that the Government will not receive bids in smaller units than the quantity necessary for one ship complete. There is probably no single mill in the United States that could furnish such a unit in several months. Therefore, bids must be entered by several mills, acting as a group. Mill managers must, therefore, confer with other mills to discover who can furnish items which they themselves cannot furnish. Many mill men will not have time to do this, and others will not. Great delay will be caused in any event, but if bids for smaller units would be considered by the Government a small force of clerks at Washington could co-ordinate

bids and thus allow the majority of mills to bid, with resultant competition and its effect on prices. Under these circumstances and based on figures of sawmill cut for last year, issued by the Forestry Department, the South could undoubtedly furnish in six to ten months lumber for one-half the number of ships required.

THE HUNTER COMPANY.

Mills of South Prepared to Get Out Ship Timbers.

Laurel, Miss., May 29.

Editor Manufacturers Record:

Every stick of timber sawed on a ship bill is cut for a particular and special purpose, and the stick cannot be used for any other purpose; therefore, must be manufactured for the ship under construction.

Under these circumstances, you can readily see that no mill can carry a stock of this class of material. There are plenty of mills in the South that are prepared to get out ship timbers, and a great many of us have obligated ourselves to the Government to furnish this class of material. As for ourselves, we have been furnishing shipbuilding timbers and lumber for Connecticut, Massachusetts and the Gulf coast, and thus far there has never been any trouble with the stock we supplied, so we feel that we will be able to do our share toward helping to rush construction of the ships wanted by the United States Government at this time.

S. H. McLAUGHLIN,
WAUSAU SOUTHERN LUMBER CO.

Been Shipping Yellow Pine Boat Stock Fifty Years—Ample Quantities Available Now.

[Special Dispatch to Manufacturers Record.]

Savannah, Ga., May 30.

Our company and its predecessors have been shipping yellow pine ship, barge and boat stock out of Georgia and Florida for 50 years, and later also out of Gulf ports. There is yet ample quantities in both sections for all needs for ships of 2000 tons and under. It can be had in the South Atlantic and Gulf ports with promptness, and in such usual condition as has always been used in building ships. Southern yellow pine has always been recognized as the best material for shipbuilding.

SOUTHERN PINE CO. OF GEORGIA,
WM. B. STILLWELL, Secretary and Treasurer.

BIDS FOR 100 WOODEN SHIPS PROVISIONALLY ACCEPTED.

Final Awards to Be Made When Shipyards Have Completed Arrangements for Construction.

[Special Correspondence Manufacturers Record.]

Washington, D. C., June 4.

Bids submitted by Southern sawmills for lumber for the construction of 100 wooden ships were provisionally accepted during the past week by the United States Shipping Board. Awards of contracts for this lumber will not be made by the board until arrangements are completed for the construction of the ships by the shipyards. When the 100 contracts are let to the shipbuilders arrangements will be made for the transportation of the lumber from the South to the shipyards which will build the wooden vessels.

Until the contracts with the shipbuilders are completed, it is probable that no announcement of the names of the lumber companies competing for the supplying of the contract will be made. It is evident that the Shipping Board is not yet decided where the lumber contracts will be placed until the locations of the shipyards which will construct the vessels has been determined. Questions of transportation, it is understood, largely influence the decision of the board not to make an announcement previous to the award of contracts. It is probable, however, that the contracts for wooden-ship construction will be placed within the next 30 days, although no official confirmation of this point is obtainable at the present time.

The tendency of the Shipping Board to make the shipyards accept contracts on a fixed-price basis may interfere with the early completion of the program an-

nounced with regard to the accepting of bids from Southern mills. Many officials feel that the fixed-price basis is obstructive of speed, which is the first necessity in the present crisis in merchant shipping.

Shipbuilders complain that the fixing of prices at this time is unfair to them, inasmuch as the cost of skilled labor is increasing steadily, while the supply is decreasing. This situation is particularly aggravated at the present time because of the Government's entrance into the field of bidders for the identical labor necessary to the wooden shipbuilding yards.

In this connection it is pointed out that the construction by the War Department of the cantonments necessary for the housing of the huge army to be trained this year will require the services of thousands of skilled carpenters and mechanics who otherwise would be diverted to the wooden shipbuilding yards. The scarcity of labor, therefore, undoubtedly will be great in the wooden shipyards. This will mean a correspondingly great increase in the wages of skilled men, which during the present year may reach unprecedented figures. The fixation of prices at the present time by the Shipping Board apparently does not take into account this contingency, and unless an elastic cost system is established a marked slowing up in wooden shipbuilding may result.

The best remedy for this situation, according to the view of the shipbuilders, is the plan for awarding ship contracts now almost universally adopted by the Navy Department in its naval building program. Most of the contracts placed by the department since the outbreak of war, and even before, have been awarded on a cost plus 10 per cent. profit basis. This allows of the early completion of the contracts, with a fair price to the Government and a fair profit to the builder. It is understood that pressure is being brought to bear upon the Shipping Board to follow out this plan, which is mutually favorable.

Additional Southern Shipyards Planned.

Activities for the establishment of Southern shipyards continued during the past week, six new enterprises of this character having been announced. Three of these establishments will be located at Houston and the others at Galveston. The various other shipbuilding plants reported since the first of May are rapidly being prepared for active construction, active work having commenced in most instances. The week's news is summarized as follows:

Shipyards will be established by the Gulf Shipbuilding Co., Millville, Fla., but to what extent the company will build ships or of what size has not been determined. The amount of the capital stock is \$50,000. This company was among the new organizations reported in May, H. H. Boyer being president. Its plant will be at Millville, with principal offices at Panama City, Fla., and branch office at Pensacola.

Facilities for constructing wooden ships will be established at Galveston, Tex., by Kane & Weaver. This firm has been organized by J. J. Kane and L. C. Weaver and has leased waterfront property 700 by 150 feet, with slip and old marine ways which will be utilized.

Organization will soon be effected by the National Ship Building & Dry Dock Co., Savannah, Ga., recently mentioned as incorporated with a capitalization of \$300,000. R. S. Salas, one of the incorporators and president of the Standard Fuel Supply Co., states that the new company is not yet prepared to state details but that the incorporators anticipate erecting a large shipbuilding plant in the South.

Plans and specifications have been completed for the copperworking shop recently announced as to be built by the Bethlehem Steel Co. (South Bethlehem, Pa.) for the shipbuilding department of its Penn-Mary Steel Co. at Sparrows Point, Md. The Bethlehem corporation is its own architect for this plant and the machinery to be installed will include furnaces, copper pipe bending machines and hoists. It states that the plans provide for the following: 61x121-foot extension to a 121-foot-wide building; 60x60-foot middle portion, 25-foot floor to bottom of truss; two 60x30-foot wing portions, 13-foot floor to bottom of truss; concrete piles, foundations, floors and roof; steel columns, trusses, bracing and lintels, brick wall, steel sash, wire glass, steel rolling doors, slag roofing and sheet metal ventilators.

When all the plans for the establishment of ship building yards upon the Houston ship channel that

are now being discussed and in process of consummation are finally accomplished this new industry at Houston, Tex., will have assumed large proportions according to reports from that city. Besides the several companies that have already made considerable progress with their work of constructing shipbuilding yards, further announcements of new enterprises of this character are being made.

The Midland Bridge Co., which has branch offices at Houston, has purchased a site on the north side of the ship channel between the turning-basin and Clinton. Its plant will employ between 400 and 500 men. The site has a frontage of about 1000 feet upon the deep water channel. The company already has a tentative contract for the building of six wooden ships and expects to obtain a contract for at least six more.

Another shipbuilding plant that is said to be practically assured is that of Horton & Horton of Houston, mentioned in the MANUFACTURERS RECORD last week. This firm is arranging to start the construction of six wooden vessels as soon as the necessary equipment can be installed and the materials obtained. Each of these 12 ships that are to be built by the Midland Bridge Co. and Horton & Horton will be of 3000 tons net and will each cost about \$400,000, equally divided between

the hull and machinery. The minimum speed of each vessel will be 10 1-10 knots. Each one will be 281 6-10 feet over all and of a 46-foot beam.

The Carter Lumber & Building Co. has purchased a site with a frontage of about 600 feet on the Houston ship channel upon which it will erect a shipbuilding plant at Houston.

Another project of this character is being promoted by F. S. Glover, Louis Clover and J. J. Settegast, Jr. They have under consideration the purchase of two sites upon which they will erect large shipbuilding yards. Mr. Settegast is president of the Houston Car Wheel Works, Houston.

Facilities for shipbuilding will be established at Moss Point, Miss., by the Terry Shipbuilding Co. (Edward Terry and George F. Britain) of New York. This plant will be located on Beardslee Creek, option on sufficient land having been secured. Facilities will be installed for building 20 merchant cargo steamers of 3500 tons each, for which Messrs. Terry and Britain have received contract from the Government.

Shipyards are planned near Washington, D. C., by the General Shipbuilding Co., which has been incorporated with Fred S. Swindell, president, and L. F. Sasscer, secretary. The capitalization is \$200,000.

Why Do We Fight Germany?

By FRANKLIN K. LANE, Secretary of the Interior.

Tomorrow is Registration Day. It is the duty of all, their legal as well as their patriotic duty, to register if within the class called. There are some who have not clearly seen the reason for that call. To these I would speak a word.

Why are we fighting Germany? The brief answer is that ours is a war of self-defense. We did not wish to fight Germany. She made the attack upon us; not on our shores, but on our ships, our lives, our rights, our future. For two years and more we held to a neutrality that made us apologists for things which outraged man's common sense of fair play and humanity. At each new offense—the invasion of Belgium, the killing of civilian Belgians, the attacks on Scarborough and other defenseless towns, the laying of mines in neutral waters, the fencing off of the seas—and on through the months we said: "This is war—archaic, uncivilized war, but war! All rules have been thrown away; all nobility; man has come down to the primitive brute. And while we cannot justify we will not intervene. It is not our war."

Then why are we in? Because we could not keep out. The invasion of Belgium, which opened the war, led to the invasion of the United States by slow, steady, logical steps. Our sympathies evolved into a conviction of self-interest. Our love of fair play ripened into alarm at our own peril.

We talked in the language and in the spirit of good faith and sincerity, as honest men should talk, until we discovered that our talk was construed as cowardice. And Mexico was called upon to cow us. We talked as men would talk who cared alone for peace and the advancement of their own material interests until we discovered that we were thought to be a nation of mere money-makers, devoid of all character—until, indeed, we were told that we could not walk the highways of the world without permission of a Prussian soldier; that our ships might not sail without wearing a striped uniform of humiliation upon a narrow path of national subservience. We talked as men talk who hope for honest agreement, not for war, until we found that the treaty torn to pieces at Liege was but the symbol of a policy that made agreements worthless against a purpose that knew no word but success.

And so we came into this war for ourselves. It is a war to save America, to preserve self-respect, to justify our right to live as we have lived, not as someone else wishes us to live. In the name of Freedom we challenge with ships and men, money and an undaunted spirit that word "Verboten" which Germany has written upon the sea and upon the land. For America is not the name of so much territory. It is a living spirit, born in travail, grown in the rough school of bitter experiences, a living spirit which has purpose and pride

and conscience—knows why it wishes to live and to what end, knows how it comes to be respected of the world, and hopes to retain that respect by living on with the light of Lincoln's love of man as its old and new testament. It is more precious that this America should live than that we Americans should live. And this America as we now see has been challenged from the first of this war by the strong arm of a power that has no sympathy with our purpose, and will not hesitate to destroy us if the law we respect, the rights that are to us sacred, or the spirit that we have, stand across her set will to make this world bow before her policies, backed by her organized and scientific military system. The world of Christ—a neglected but not a rejected Christ—has come again face to face with the world of Mahomet, who willed to win by force.

With this background of history and in this sense, then, we fight Germany—

Because of Belgium—invaded, outraged, enslaved, impoverished Belgium. We cannot forget Liege, Louvain and Cardinal Mercier. Translated into terms of American history, these names stand for Bunker Hill, Lexington and Patrick Henry.

Because of France—invaded, desecrated France, a million of whose heroic sons have died to save the land of Lafayette. Glorious, golden France, the preserve of the arts, the land of noble spirit. The first land to follow our lead into republican liberty.

Because of England—from whom came the laws, traditions, standards of life and inherent love of liberty which we call Anglo-Saxon civilization. We defeated her once upon the land and once upon the sea. But Australia, New Zealand, Africa and Canada are free because of what we did. And they are with us in the fight for the freedom of the seas.

Because of Russia—New Russia. She must not be overwhelmed now. Not now, surely, when she is just born into freedom. Her peasants must have their chance; they must go to school to Washington, to Jefferson and to Lincoln until they know their way about in this new, strange world of government by the popular will.

Because of other peoples, with their rising hope that the world may be freed from government by the soldier.

We are fighting Germany because she sought to terrorize us and then to fool us. We could not believe that Germany would do what she said she would do upon the seas.

We still hear the piteous cries of children coming up out of the sea where the Lusitania went down. And Germany has never asked forgiveness of the world!

We saw the Sussex sunk, crowded with the sons and daughters of neutral nations.

We saw ship after ship sent to the bottom—ships of mercy bound out of America for the Belgian starv-

*Address by Franklin K. Lane, Secretary of the Interior, on June 4, 1917, before the Home Club of the Interior Department, Washington, D. C.

ing; ships carrying the Red Cross and laden with the wounded of all nations; ships carrying food and clothing to friendly, harmless, terrorized peoples; ships flying the Stars and Stripes, sent to the bottom hundreds of miles from shore, manned by American seamen, murdered against all law, without warning.

We believed Germany's promise that she would respect the neutral flag and the rights of neutrals, and we held our anger and outrage in check. But now we see that she was holding us off with fair promises until she could build her huge fleet of submarines. For when spring came she blew her promise into the air, just as at the beginning she had torn up that "scrap of paper." Then we saw clearly that there was but one law for Germany, her will to rule.

We are fighting Germany because she violated our confidence. Paid German spies filled our cities. Officials of her Government, received as the guests of this nation, lived with us to bribe and terrorize, defying our law and the law of nations.

We are fighting Germany because while we were yet her friends—the only great power that still held hands off—she sent the Zimmerman note, calling to her aid Mexico, our southern neighbor, and hoping to lure Japan, our western neighbor, into war against this nation of peace.

The nation that would do these things proclaims the gospel that government has no conscience. And this doctrine cannot live, or else democracy must die! For the nations of the world must keep faith. There can be no living for us in a world where the State has no conscience, no reverence for the things of the spirit, no respect for international law, no mercy for those who fall before its force. What an unordered world! Anarchy! The anarchy of the rival wolf packs!

We are fighting Germany because in this war feudalism is making its last stand against oncoming democracy. We see it now. This is a war against an old spirit, an ancient, outworn spirit. It is a war against feudalism—the right of the castle on the hill to rule the village below. It is a war for democracy—the right of all to be their own masters. Let Germany be feudal if she will! But she must not spread her system over a world that has outgrown it. Feudalism plus science, thirteenth century plus twentieth—this is the religion of the mistaken Germany that has linked itself with the Turk; that has, too, adopted the method of Mahomet. "The State has no conscience." "The State can do no wrong." With the spirit of the fanatic she believes this gospel, and that it is her duty to spread it by force. With poison gas that makes living a hell; with submarines that sneak through the seas to slyly murder non-combatants; with dirigibles that bombard men and women while they sleep; with a perfected system of terrorization that the modern world first heard of when German troops entered China—German feudalism is making war upon mankind.

Let this old spirit of evil have its way, and no man will live in America without paying toll to it, in manhood and in money. This spirit might demand Canada from a defeated, navyless England and then our dream of peace on the north would be at an end. We would live, as France has lived for 40 years, in haunting terror.

America speaks for the world in fighting Germany. Mark on a map those countries which are Germany's allies, and you will mark but four, running from the Baltic through Austria and Bulgaria to Turkey. All the other nations, the whole globe around, are in arms against her or are unable to move. There is deep meaning in this. We fight with the world for an honest world, in which nations keep their word; for a world in which nations do not live by swagger or by threat; for a world in which men think of the ways in which they can conquer the common cruelties of nature instead of inventing more horrible cruelties to inflict upon the spirit and body of man; for a world in which the ambition of the philosophy of a few shall not make miserable all mankind; for a world in which the man is held more precious than the machine, the system or the State.

An equipment of 5000 spindles for a daily capacity of 2000 pounds of cotton yarn will be installed by the Moffett Cotton Mill of High Point, N. C. This company has organized and will build a 235x80-foot mill in which to install the machinery. Its secretary-treasurer and general manager will be H. A. Moffett.

To Permit Water-Power Development Object of New Bill Introduced in Congress

MEASURE FATHERED BY CONGRESSMAN SMALL WOULD REMOVE PRESENT OBSTACLES TO CONSTRUCTION WORK AND MAKE POSSIBLE VAST INDUSTRIAL EXPANSION IN THE SOUTH.

[Special Correspondence Manufacturers Record.]

Washington, D. C., June 1.

The most progressive move yet made in systematizing the improvement of rivers and harbors and making rivers navigable without expense to the Government was inaugurated in the House of Representatives when John H. Small of North Carolina, chairman of the Rivers and Harbors Committee, introduced a bill to amend the Rivers and Harbors Act of March 3, 1899, under which the improvement of rivers and harbors is now undertaken. Section 9 of the original rivers and harbors bill made appropriations for the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes. The bill introduced by Mr. Small amends the measure by adding at the end of it the following:

And provided further, That whenever the construction of any navigation improvement or the alteration or enlargement of an existing improvement upon, in, along, or across any river, harbor, or other water of the United States can thereby be secured, in whole or in part, without expense to the United States, the Secretary of War is hereby authorized to enter into a contract therefor with any person or corporation who has acquired from the State or States in which the improvements are to be located the rights necessary therefor, and who will undertake to construct such improvement in return for the rights and privileges granted herein: Provided, however, That the Secretary of War shall first determine that the navigation improvement is necessary or desirable in the public interest for the purpose of improving or developing a waterway or waterways for the uses of interstate or foreign commerce.

Every contract made hereunder shall contain or make reference to detailed plans and specifications which must be approved by the Chief of Engineers for the navigation, improvement and accessory works authorized thereby, showing the location thereof and the land necessary therefor, and shall contain such provisions and regulations with respect to the construction, maintenance, use and operation of the navigation, improvement and accessory works as the Secretary of War may deem necessary for the protection of the interests of interstate and foreign commerce, and no structure or works shall be begun until such plans and specifications have been approved as aforesaid. Every contractor shall have the right to construct, maintain, use and operate the navigation improvement and such accessory works as may be authorized by the contract for the development of water-power and other purposes, in accordance with and subject to the provisions of the contract and of this Act, and subject to such reasonable regulation of rates, charges and service as may be prescribed under authority of the State or States in which the service is rendered, and in case the service is interstate and the authorities of the State directly affected cannot agree, then subject to such regulation of rates, charges and service as the Interstate Commerce Commission shall prescribe; the right to use such public or other land of the United States as may be described in the contract and necessary therefor upon paying to the United States such compensation or charges based upon the fair and reasonable value of the land as may be fixed in the contract; and the right to acquire such other land as may be necessary therefor by the exercise of the power of eminent domain.

The United States shall have the right at any time after the expiration of 50 years from the date of any contract made hereunder to terminate the rights and privileges of the contractor by taking over the navigation improvements and accessory works authorized by the contract, and all the property of the contractor dependent in whole or in part upon such improvements or works for its usefulness or value, upon paying to the contractor just compensation therefor, which shall not include any payment for the value of any of the rights herein granted, and upon assuming all contracts for power entered into by the contractor which are dependent in whole or in part upon the properties taken over.

The District Court of the United States shall have jurisdiction to hear, try and determine any suit or proceeding brought under this Act, including any condemnation suit or proceeding brought by any contractor hereunder, regardless of the sum or value of the matter in controversy. The provisions of this Act and of any contract made hereunder shall be enforceable by and against the personal representatives, successors and assigns of the contractor.

Sec. 2. That an Act entitled "An Act making an appropriation for the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes," approved March 3, 1899, is hereby amended by adding thereto a new section, to be known as Section 21a, as follows:

Sec. 21a. That the Secretary of War be, and he is hereby,

authorized to enter into agreements for the use of surplus water and water-power generated at dams or diversion structures and works constructed, wholly or in part, by the United States in the interests of navigation at rates securing to the Government reasonable compensation for the opportunity for the generation of power created at its expense on such terms and conditions, and for such periods of time, not to exceed 50 years, as may seem to him just, equitable and expedient, subject, however, to the provisions of this Act governing the authorization, maintenance and operation of power-plants in connection with navigation improvements, and to all regulations governing the use and disposition of the power, so far as the same may be applicable; and all such agreements, the parties thereto and the terms and conditions thereof shall be reported annually to Congress: Provided, That the said Secretary of War in making such agreements, other conditions being equal, shall give preference to the bid solely for municipal use of any municipal corporation or other public corporation not operated for profit.

This amendment, if approved by the House and Senate, will open the way for the biggest industrial development ever known to the South. It will mean that rivers that are virtually useless for navigation purposes will be made navigable; that water-power going to waste will be used for a constructive industrial purpose; that new industries of all kinds will spring up; that the cost of fertilizer will be reduced, and that coal will be cheaper because it will then have competition from electric power generated by water fall.

Mr. Small introduced his bill after a thorough study of the navigation system of the United States. He realizes at this time that every resource of the nation should be used in the war against Germany, and that every means must be taken to keep down the expenses of the Government and the cost of living to the people. The Government has been spending hundreds of millions of dollars to provide navigation. Much of this work, Mr. Small realized, would be done without charge by private capital in exchange for the use of water-power. It is no longer a question of giving away valuable rights to private capital. The situation is one wherein the Government gets far more than it gives. The industrial development alone would benefit the people, but in the case of streams that are now navigable there will be a direct benefit to the Government and to the people in addition to this indirect benefit.

The bill introduced by Mr. Small places the work of the Rivers and Harbors Committee upon the firmest foundation ever provided for it. If the plan which he proposes becomes a part of the rivers and harbors program, it will evolve an enormous system of development without Government expense. The War Department, whenever the construction of any navigation improvement or the alteration or enlargement of an existing improvement can be secured without cost to the Government, will enter into a contract with any person or corporation who has acquired from the State or States in which the improvements are to be located the rights necessary therefor, and will undertake to construct such improvement in return for the rights and privileges granted.

That Mr. Small did not take the important step to amend the organic rivers and harbors law without careful investigation and consideration of every problem involved is shown by the fact that his measure meets every requirement, even of those who have been opposing water-power development. The bill recognizes the Government's jurisdiction over navigation. It provides further that the Government shall have revenue from the improvement, and that the same system adopted with respect to railroad rates shall also be adopted with respect to water-power rates. Moreover, the contracts shall run for only 50 years, after which the United States shall have the right to terminate the rights and privileges of the contractor "by taking over the navigation improvements and accessory works authorized by the contract, and all the property of the contractor dependent in whole or in part upon such improvements." The payments made will not include recompense for the

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value of any of the rights granted, but merely for the properties.

Presumably some attention has been paid to the important factor of attracting capital. No matter how desirable a bill might seem on the surface, it will be of little value if it were not worded in such a way that capital would feel fairly safe in investing. There are large risks in all water-power development. Capitalists will not risk large sums unless a fair return is likely in case the project is a success.

Nearly all the Southern States will be immeasurably benefited if the amendment proposed by Mr. Small, as chairman of the Rivers and Harbors Committee, is adopted by both branches of Congress. The Board of Army Engineers, all of whose recommendations go through the Rivers and Harbors Committee, doubtless will welcome the move, because they have frequently recommended to the committee such improvements as could be had by the Government without expense. The move has been made along broadly constructive lines, and it is believed that the Southern members of Congress will work earnestly and unselfishly for this effort of national efficiency and development. Mr. Small is receiving commendations for his vision and constructive ability in working out this solution of an intricate question.

MAKING LEATHER OF FISH SKINS.

Activity of Mobile Firm in Utilizing Hitherto Waste Products of the Sea.

Mobile, Ala., June 2—[Special.]—Information has reached Mobile from a source considered authentic that the E. E. Saunders Fish Co. of Pensacola, Fla., will soon equip a large fleet of smacks to catch shark, grouper and porpoise. It is said that the skins from these fish will be tanned and the leather marketed. Mr. Frank E. Welles, president of the company, is quoted here as authority for the statement.

Some time ago Mr. Welles sent skins taken from the shark, porpoise and grouper to the Passaic Leather Co., Passaic, N. J., to be tanned. He was surprised to find that the skins came back in excellent leather samples. The shark skin made a strong leather with a smooth black surface. The porpoise leather resembled buckskin in toughness and pliability. The greatest surprise, however, was furnished by the grouper. The leather made from the latter fish was of a very fine quality. It is believed that it will make the best class of kid gloves for women and men.

Mr. Welles said that the supply of these fish is unlimited in the Gulf, and can be easily caught. Should his experiments conclude as favorable as he anticipates, he proposes to later on establish a tannery and manufacture the hides into high grades of leather.

Since the outbreak of the war Mr. Welles has experimented with porpoise meat to considerable extent. He declared that he had Government statements to back his assertion that the meat from the fish is the best known substitute for roast beef.

For years the heads of red snappers have been thrown into fertilizer heaps. Now the Saunders Company is preparing an excellent chowder out of them. A member of a wholesale grocery firm of Mobile which handles this new output of the Saunders Company declared to the writer that the firm cannot begin to fill the demand.

While the above plans at the present writing are more or less in their infancy, it only goes to show that large Southern establishments are themselves earnestly concerned in doing their part in relieving the condition of shortage in foodstuffs and in other things. The Saunders Company is perhaps the largest fish dealers in the South, and possibly on the Atlantic Coast.

Oil Struck in Mobile Field.

[Special Dispatch to Manufacturers Record.]

Mobile, Ala., June 5.

The Mobile Oil Co. this morning struck oil sands at a depth of 2000 feet. Contractor J. M. Eastham announced that the deposit is the same as that discovered at the well of the Alabama Gulf Oil & Gas Co. some time ago. The Mobile Oil Co. stopped drilling to obtain strainers from Texas.

Louisiana's Latest Oil Gusher Starts Boom in the Teche Country

LAND OF EVANGELINE AND TABASCO PEPPERS OVERRUN WITH OIL PROSPECTORS—CONSERVATION COMMISSIONER DECLARES SURFACE OF LOUISIANA ONLY SCRATCHED SO FAR.

[Special Correspondence Manufacturers Record.]

New Iberia, La., May 30.

New Iberia has been definitely placed on the oil map by the Gulf Refining Co., which brought in a gusher on the Bernard tract of land. The well has a strong flow, and promises to be a good producer. This is the first gusher that has been brought in in the New Iberia district, thus making this a proven oil field. The bringing in of the gusher caused an influx of prospectors, and scores of leases for oil rights were signed this week. Several more wells are being drilled, with excellent prospects for oil.

Prospects of Great Oil Development in South Louisiana.

New Orleans, June 2—[Special.]—Oil experts are at the present time clearly puzzled over the oil and gas fields of Louisiana. Just what is coming few of these experts care to hazard an opinion. Even the officials of the Department of Conservation have had their optimistic figures shattered by the volume of crude oils that have come from the gushers that have been struck in different parts of the State.

In 1915 Louisiana produced 18,414,802 barrels of oil, placing her fifth in rank of the States, having passed Pennsylvania, Ohio, Indiana and West Virginia in the last two years. These are the United States Government figures, State figures placing Louisiana's output a trifle higher.

In spite of this, the oil industry of the State is in its infancy, according to Conservation Commissioner M. L. Alexander, who is giving close attention to oil and gas matters.

To oil men the most startling of all recent developments is the flowing well, which is expected to develop into a gusher, "brought in" by the Gulf Refining Co. in the Iberia field. It has caused a great host of oil men to rush into this heretofore tranquil Teche country, noted in the past for its peaceful people, descendants of those Acadians about whom Longfellow wrote in "Evangeline"; noted, too, for its tabasco pepper and sugar-cane. Now pepper, Evangeline, sugar-cane and all else are forgotten and "oil" is the watchword.

The flow on the Gulf Refining Co.'s "gusher" is accompanied by a heavy gas pressure, causing the oil to flow considerably over the top of the casing. This flow, which caused a great deal of excitement when it was first brought in, has been increasing day by day, and the last estimate of its production was 2000 barrels. The well was bored to 2800 feet, and a test of the oil showed it to be of high grade, going a little over 26 specific gravity.

The bringing in of this well has caused even more excitement than was shown when the Bolivar No. 1 was struck, about three months ago. Its direct result has been a well-defined movement to take up every foot of territory in the neighborhood of the wells that are now producing, and every prospect is being closely watched for developments.

According to reports that reach the offices of the Department of Conservation, all of the lands between the new well and Lake Fausse, a distance of three miles, have been leased, as have also both this lake and Lake Dauterive. A deal between an Iberia company and the Producers' Oil Co., involving several hundred acres, is said to have been closed.

The work on the new wells is said to be most favorable to striking oil. In the drilling already in progress gas pockets have been struck by nearly all drillers. A well that is being sunk on Little Bayou, 2300 feet

already having been reached, is expected to come in by next week.

Caldwell parish is also experiencing an oil boom. The Gulf Refining Co., the Standard Oil Co., the Empire Gas & Fuel Co., the Ohio Gas Co., the Atlas Oil Co., the Arkansas Oil Co. and a number of independent companies are taking up a large number of leases, and are actively at work boring for the oil.

The tract being drilled by the Gulf Refining Co. in the northeastern portion of Caldwell parish is rich in expectations. The drillers have already gone nearly 3000 feet, and have found the presence of oil so strong that the operators have stopped drilling and are setting 4½-inch pipes and making preparations to take care of the product before going any deeper.

A well being drilled in the southwestern portion of Caldwell parish has gone nearly 1500 feet, and as several pockets of gas have been encountered already, the operators expect to find oil at a much less depth than some other wells.

Attention has been called to Caldwell parish for some time past by Government geologists as a most inviting field for oil, but the interest of operators has never resulted in actual boring, so busy have they been with other proven fields of the State. Now, every prospect has been covered, it is claimed by those in a position to know, and the first gusher brought in is sure to result in a rush.

The extreme southern part of Plaquemine parish is to be the scene of another oil boom if the opinions of some experts is to be taken seriously. This is worthy of consideration, as the Gulf Development Co. is preparing to start actual drilling by the first of next week at a point near the Mississippi River known as Oak Point. The derrick, rising to 112 feet, has been completed, and machinery and casing are already on the ground. Two wells are to be sunk immediately, according to the announcement made by the vice-president of the company, R. E. Hughes.

"The mineral deposits of Louisiana have been merely scratched," is the opinion of M. L. Alexander, Conservation Commissioner of the State. "We are sure that the whole State is underlain with oil and gas, and that Louisiana is going to make a hard fight for California and Oklahoma to keep their lead. To bear me out in this I would point to the fact that since 1900 and to 1915 there have been drilled a total of 2972 wells in this State. Of this number, 2063 produced oil, 591 produced gas and but 390 were dry. This, I believe, is a record for any State in the oil-producing business to be proud of. Oil is being prospected for in various parts of Louisiana, and as the prospecting is being carried on by closed corporations along intelligent lines, there seems to be good reasons for conceding a great future in this industry."

Louisiana's gas field is ranked among the greatest of the country by the Government reports. The State produced nearly 28,000,000,000 cubic feet during 1915, and has increased this output heavily during the past year. Gas from the Caddox field is of superior grade, having little fume and being non-noxious. In theoretical fuel value it is also very high, 60 per cent. of this gas being equal to 100 per cent. of gas manufactured from coal. From this field gas is piped into Shreveport, La.; Marshall, Tex.; Texarkana and Little Rock, Ark., and other cities throughout Arkansas and Louisiana. This gas—and the latest strikes in gas in other parts of the State seem to be of the same grade—is furnished to factories at one-eighth the cost of coal, an inducement to industrial establishments to locate in Louisiana.

Consideration of these minerals found throughout the State, and which are constantly being augmented by new discoveries, leads to the conclusion that there is an imperative need for a thorough geological survey of the State of Louisiana by the United States Government bureaus as a matter of national necessity and preparedness as well as of State importance.

Complete the Dixie Highway As Measure of National Defense

VITAL IMPORTANCE OF PROJECT URGED IN A COMPREHENSIVE REVIEW
OF CONSTRUCTION PROGRESS MADE IN TWO YEARS.

By V. D. L. ROBINSON, Secretary, Dixie Highway Association, Chattanooga, Tenn.

[In this review of the splendid progress made in two years in the development of the Dixie Highway, extending from the Great Lakes to Miami, Fla., Secretary Robinson calls special attention to the value of the fully completed Dixie Highway to national defense, and urges that those counties having uncompleted sections speed up the construction so that this great roadway shall be ready for military purposes if needed.

This appeal should apply not only to the counties having stretches along the Dixie Highway, but to every Southern State and every Southern county, because good roads are of vital importance in national defense.

It was due to the splendid roads leading from Paris that Marshal Joffre was enabled to quickly mobilize his troops to oppose the German army, and but for this magnificent road system the Germans would undoubtedly have captured Paris.

For military purposes roads are one of the most vital factors in adequate national defense, and there never was a time when it was more urgent for every Southern community to carry forward its road work with even increased vigor.—Editor Manufacturers Record.]

Less than 10 per cent. of 5100 miles of the Dixie Highway remains to be graded and less than 20 per cent. to be surfaced at the close of the first two years of existence as an organized business movement. This record of achievement is in keeping with manifestations of interest and enthusiasm attending the selection of the routing. Both the eastern and western divisions, it is confidently expected, will be travelable by November of this year.

Two years ago a national demand for an avenue of travel between the winter playgrounds of Florida and the summer resorts of Michigan was largely responsible for the inception of the Dixie Highway movement. This demand has been augmented by the need of the nation for a Dixie Highway available as an auxiliary, and, if need be, a substitute for the railroads in the mobilization of products of the soil and factory for national defense. It has placed on this promotive organization, and the various counties through which it passes, a solemn obligation to speed up the completion of the Dixie Highway as an act of patriotic preparedness. Road commissioners and other county authorities have been called upon to "do their bit" for the nation by concentrating their forces upon the Dixie Highway. The responses indicate a general appreciation of the importance of this work from a military standpoint.

From Detroit to Miami, a distance of 1536 miles, there are less than 67 miles of road to be constructed outright, and 163 miles of road to be surfaced. Substituting the routing via Savannah, instead of via Macon and Waycross, there are 50 miles of road to be graded and 196 miles of road to be surfaced for the first time.

On the Macon and Waycross routing there have been constructed 229 miles of permanent road, 130 miles of asphalt, 694 miles of macadam, rock or gravel, and 220 miles of sand-clay. The proportion of the various classes of surfacing on the Savannah routing is practically the same, so that, for brevity, it is advisable to continue the consideration of the shortest route between Detroit and Miami. There will be added during the summer 104 miles of permanent road and 10 miles of asphalt, in addition to a large amount of resurfacing and grading. From reports received, the amount of ungraded road will not exceed 30 miles, and the mileage of the highway to be surfaced for the first time will not exceed 75 miles by the close of this year. Owing to the very temporary nature of the sand-clay and chert surfacing, this statement must be qualified by the proviso that counties having this type of road properly maintain them for winter travel.

Two years ago the road between Detroit and Cincinnati was unconnected, with sections even difficult to negotiate. Between Cincinnati and Chattanooga 75 per cent. existed only on paper. Between Chattanooga and Macon it was travelable only in dry weather, and then with difficulty. Between Macon and Jacksonville a continuous trip was impossible under any and all weather conditions. The expenditures for a period of

two years in paving, surfacing and grading between Detroit and Miami have topped the \$6,000,000 mark. The counties will expend more than half this amount in the next 12 months in bringing it nearer the completed road.

The Detroit to Cincinnati link of the Dixie Highway as a whole occupies a more advanced position of improvement than any other division of the highway. Out of a mileage of 263.5, approximately 115 miles is now paved with brick or concrete, 15 miles with asphalt and the remainder with macadam, rock or gravel. Much of the macadam is asphalt or oil-treated. According to the plans for improvement this year, 82.7 miles of permanent highway will be added this summer.

From Cincinnati to Richmond, Ky., practically the entire mileage of old macadam or gravel road will be resurfaced this year. Eight and one-half miles of concrete road have been constructed in Kenton county. Boone county voted bonds and removes the tollgates in use for 72 years. The mileage of the Dixie Highway in Boone and the lower end of Kenton counties, the rough sections in Grant and Scott counties, will be resurfaced this year. A free high bridge across the Kentucky river at the Fayette and Madison county line is being strongly agitated. The surfacing has been extended from Richmond through Berea to the Rockcastle line, with the work well under way toward Mt. Vernon, the county-seat of Rockcastle, giving assurance of a well-surfaced road from Cincinnati to the Cumberland Mountains by fall.

Out of a mileage of 300 from Berea, Ky., to Chattanooga, only 22 miles remain to be graded and 90 miles of newly-graded road to be surfaced. With a completed highway assured from Corbin to Cumberland Gap and all of the bridges in, the grading and 75 per cent. of the surfacing completed from Mt. Vernon to Corbin, the five-mile gap at the Laurel and Rockcastle line is the only obstruction to a travelable eastern division by late fall. Claiborne county is completing its mileage from Cumberland Gap toward Maynardsville. Union county has 50 per cent. of the highway finished, with the bridges in and the necessary funds to complete the highway to the Knox county line. The highway between Knoxville and Chattanooga will be well surfaced throughout by the middle of summer.

Between Chattanooga and Atlanta there remain 14 miles of the highway to be surfaced. This mileage is between Calhoun and Cartersville, in Gordon and Bartow counties. The chain gang has started to work on the Bartow county link, with the promise of completion by early summer. Gordon county has given the assurance that its mileage will be surfaced.

Between Atlanta and Macon the highway has been designated as the first Federal aid project.

From Atlanta to Savannah over the old Capitol route via Eatonton, Madison and Milledgeville, the greater portion of the highway is of sand-clay, well maintained in the summer months. From Savannah to Jacksonville minor improvements have been made. This routing is now travelable.

From Jacksonville to Miami along the eastern division the few remaining stretches are being rapidly

surfaced, and by fall of this year practically a boulevard will be provided the entire mileage. A new bridge has recently been constructed across the river at Stuart. A movement is under way looking to the construction of a new bridge over the St. John's River at Jacksonville.

Along the central division, between Macon and Jacksonville, the counties as well as the terminal cities and the more important towns, such as Fitzgerald and Waycross, are concentrating on the section of the highway between Waycross and Jacksonville. The citizens of Jacksonville brought about a temporary improvement of the road from the St. Mary's River to Jacksonville. Duval will pave the balance of its mileage on this road, and will endeavor to assist Nassau in providing a sand-clay surface to the St. Mary's River. The bridge over St. Mary's River has been completed. An effort is being made to secure Federal aid for Charlton and Pierce counties, just north of the river. A movement has been started in Ware county for a \$1,000,000 bond issue, which will enable the county to pave the entire mileage of the highway. Bibb county next year, according to the present program, will pave the mileage of the highway south of Macon.

Progress along the western division between Chicago and Tallahassee, a distance of 1152 miles, has been keeping pace with that of the eastern division. In two years the mileage of natural trail has been reduced to 28, and the unsurfaced road mileage to 141. By November there will be completed at least 75 per cent. of the entire new road between Nashville and Chattanooga. This completed section, with a short detour which may temporarily be required, will afford tourists to Florida this winter a crossing of the Cumberland Divide. Between Chicago and Tallahassee there are today 94 miles of permanent road, 38 miles of asphalt, 578 miles of macadam, rock or gravel and 276 miles of sand-clay or chert surfacing.

The remainder of the 650 miles of the western division between Tallahassee and Miami via Gainesville, Ocala, Arcadia, Fort Meyer and Marco has shown greater progress than any other similar mileage of road in the United States. Over 190 miles of the most southern section of this division extends through the famous Everglades of Florida, calling for extremely difficult and expensive road and canal construction. Starting with less than 10 per cent. in travelable condition two years ago, a well-surfaced road from Tallahassee to Fort Meyer is in sight by January 1. Within a year from that date a well-surfaced road will be extended through Marco and across the State to Miami.

On the entire western division from Chicago to Miami via Tallahassee and Marco, a mileage of 1802, expenditures have been made and bonds issued in excess of \$5,500,000.

By fall of this year more than 50 per cent. of the mileage in the State of Illinois will be of concrete, brick or asphalt.

In Indiana, with the resurfacing to be carried on this year, there will not be a mile of the Dixie Highway in this State which cannot be traveled at any time of the year.

In Kentucky, on the western division, between Louisville and Nashville, approximately 10 miles remain to be surfaced. This division was used by thousands of tourists last year. The section between Cave City and Bowling Green, where the unsurfaced mileage exists, has been included in the first Federal aid project to be taken up by the State highway department.

The crossing of the Cumberland Divide between Nashville and Chattanooga, requiring difficult and expensive construction of four isolated mountain counties, presented a duplicate of the problems of crossing the same divide on the eastern division in Kentucky. Today this puzzling question has almost reached a solution as far as financial preparedness are concerned. All questions of routing have been satisfactorily settled, insuring a travelable highway between Nashville and Chattanooga by fall of this year. The State highway department has indicated that the Dixie Highway along this division will receive Federal or State aid. An enabling act by the last Tennessee Legislature permits Marion county, where the most difficult and expensive work has been necessary, to vote a bond issue of \$100,000 on July 7. In order to further lighten Marion county's burden of constructing 44 miles, most of which is mountain road, President Allison secured the annexation of a narrow strip through Suck Creek Gorge, by Hamilton county, thereby transferring the construction of four miles of expensive road to the wealthier county.

If the \$160,000 bond carries with the State aid promised Marion county, ample funds will be provided to remove the last of many obstructions to the completion of the western division of the highway in Tennessee.

South of Chattanooga the Dixie Highway as far as Rome, Ga., will be well-surfaced road within 30 days, which will mark the completion of the work in Chattanooga county south of Taylor's ridge. From Rome to the junction north of Cartersville, Ga., of the eastern division to Atlanta a well graded but unsurfaced road is provided, but Bartow county has given assurance that this would be surfaced. The State highway department has designated a road from Rome through Summerville to the Alabama line for Federal aid.

At Macon, where the western division leaves the eastern, a good sand-clay road is provided for the entire mileage to Tallahassee.

From Tallahassee to Gainesville, Jefferson and Madison counties are providing a new stretch of sand-clay road. Taylor county is engaged in building the entire mileage of the highway of brick and sand-asphalt under a \$60,000 bond issue. Lafayette county has a special rural district bond issue, which provided the bond funds to pave the mileage of the highway through the county with sand-asphalt. Special road districts are being organized in Alachua county, which will provide for the paving of the remainder of the unsurfaced mileage in that county. An excellent road to Gainesville from Tallahassee will be opened by January 1 next, and by the early part of 1918 a paved boulevard from Gainesville to Arcadia may be expected. Polk county, with 44 miles of this link of the highway, voted \$1,825,000 for sand-asphalt roads.

One of the most stupendous undertakings in the way of difficult road construction attempted by any State is the building of the Dixie Highway through the Everglades of Florida, across the State from Fort Meyer to Marco, thence east to Miami, joining the eastern and western divisions, and completing the loop around the State of Florida. The funds for this work, which will be carried on in conjunction with the construction of canals for drainage of the Everglades, have been provided. Land dredges are now at work excavating for the canals and throwing up the suitable material for the construction of the roadbed. At least two years will be required for the completion of the task. The connecting links of the highway between Tallahassee and Jacksonville and from Arcadia on the western division to Jupiter, on the eastern division, are also being improved. Following a survey of road construction completed or under way, of bond issues voted, which in practically every instance specify the roads to be improved, together with the plans being worked out for a State system of roads, the State of Florida will have a net work of 3000 miles of well-improved highway by the fall of 1918. It will then be possible to reach any point in Florida without difficulty.

The accomplishment in the way of road construction on the two divisions during the past two years calls for renewed efforts. The first objective of the highway open for travel is in sight. It is of the utmost importance that one or more divisions be open for travel to Florida this winter.

Oklahoma Electric Development to Cost \$500,000.

Probably \$500,000 will be the cost of the hydro-electric development, with plants at Ada and Shawnee, Okla., which will be undertaken by the Oklahoma Power & Transmission Co. From 7000 to 10,000 kilowatts will be developed for transmission to Ada, Shawnee, Lawrence, Fitzhugh, Roff, Tupelo, Stonewall, Colgate and other cities, the transmission system to be about 100 miles long. The power-house and stack will be constructed of concrete, and the machinery will include two 3500-kilowatt Westinghouse steam turbines, 12 Heine boilers, gas burners for these boilers, etc. Mr. Zimmerman invites prices on bricks, fire-bricks, fire-clay, cement, reinforcing steel, concrete chimney, steel trusses, sheet-steel breeching, steel intake pipes, intake screens, high-tension equipment, cables, pole line materials, copper wire, gas burners for boilers, pipe fittings, concrete machinery, electric and steam hoisting equipment. Sinclair Mainland of Chicago is president. W. H. Zimmerman of the W. H. Zimmerman Company of Chicago is the construction engineer, and will build the plants by force account under his supervision, with offices at Ada, Okla.

Analysis of Principles of Taxation with Reference to Present Revenue Program

[Special Correspondence Manufacturers Record.]

Washington, D. C., June 4.

At a time when Congress is framing the biggest taxation program ever evolved at a single sitting of a parliamentary body, it is of value to the country to understand the real principles underlying taxation. At the request of the MANUFACTURERS RECORD, J. F. Zoller, one of the foremost tax attorneys of the country, has prepared a brief statement of taxation principles as they might be applied to the present taxation program of the United States Government. At the present time the problem in Washington takes three forms:

First—An effort is being made to raise by private and corporate subscription \$2,000,000,000 for the Liberty War Loan Bonds. The Treasury Department is devoting its entire time to this herculean effort. All the corporations are subscribing largely to the bonds, many of them disposing of industrial securities in order to invest in the Government bonds.

Second—Congress meanwhile is seeking to frame a bill to raise \$1,800,000,000 by direct taxation. Most of this money will come from the same corporations that are contributing most to the Liberty War Loan.

Third—The efforts of the Government are not correlated and are worked out on no set principle. This is shown by the fact that the War and Navy departments and all the committees of the Council of National Defense are working steadfastly to eliminate every vestige of war profit in the purchases made by the Government. There is even a proposal for a central purchasing committee that would force all corporations to sell to the Allies at the low prices quoted to the American Government. Lest the goose that lays the golden egg be killed, some program based upon well-established principles of taxation should be evolved.

Mr. Zoller's article deals solely with the fundamentals of the situation, and is regarded as the most valuable contribution yet made to the discussion of taxes.

PROFITS AND TAXES.

By J. F. ZOLLER, Tax Attorney, Schenectady, N. Y.

Both profits and taxes have a very vital relation to the success or failure of the present war with the Imperial German Government.

The success of the present conflict necessarily will depend mainly upon the success of industry because the man power of the United States and her allies cannot be utilized to any advantage against the enemy unless the materials needed to properly and fully equip the great armies and navies of these nations are forthcoming at all times during the conflict.

Farming and manufacturing are the chief industries that will be called upon to furnish the absolutely essential war supplies in order to bring this war to a successful conclusion.

In order that these industries may be utilized to their fullest extent everything possible should be done for their encouragement, so that they will make every effort to increase their output to the fullest extent and do all in their power to bring about the greatest efficiency. Anything done at this time to discourage these industries must necessarily bring about indifference and inefficiency upon their part. Such indifference and inefficiency means a decrease in the output of war supplies, and such decreases in output, even for a limited period, may result in disaster to this Government and her allies.

One of the best means of encouraging industry is to permit it to earn what capital reasonably believes to be a fair return on the amount invested in the business; one of the surest means of discouraging industry is to fix prices so that the net return falls below the amount ordinarily earned by capital in the particular business affected.

Profits and taxation necessarily travel hand in hand because the greater the opportunity for profit the more wealth there is to tax. If there were no profits there would be no need for taxation, because there would be eventually nothing to tax. It is far better for any country, especially during a crisis, to permit large profits, even though it be necessary to confiscate a large percentage of such profits by high taxes than to fix prices so that profits are small, with the hope that

taxes will thereby be materially reduced. This is so because large profits stimulate industry and assure the supplies necessary to the conduct of the war and at the same time furnish the wealth to be used as a tax base for the purpose of financing the war. Small profits, on the other hand, may not only fail to furnish the wealth necessary for taxation purposes, but, what is even more serious, they fail to produce the necessary supplies for army and navy, which supplies constitute the very lifeblood of those branches of the governments at war.

It is perfectly natural to tax all property and individuals to an amount necessary to meet any governmental emergency, provided such taxes are properly distributed and no person or industry secures an advantage because of the tax. Every individual fully understands that uniform taxation constitutes the price he pays for the privilege of living in civilized society. Price fixing, on the other hand, is in the main unnatural, because the price logically depends upon supply and demand or the amount the consumer reasonably can be induced to pay for the thing produced.

Much of our industry in the past has been carried on by capital invested in corporate form, or, in other words, by capital provided by an aggregation of individuals, all of whom do not and cannot participate in the management of the business. These corporations have not only been legally sanctioned, but have been found to be absolutely necessary to the development of our resources and the furnishing of products and services to all the people at the smallest cost possible. It is to be assumed that capital in this form will be expected to contribute to the success of the present war. It is, therefore, a time for all of us to lay aside any prejudices which we may have had or thought we had against the transaction of business in corporate form because, notwithstanding that certain individuals have in the past opposed the transacting of business by corporations and have advocated the penalizing of such institutions, they have been unable nevertheless, even in times of peace, to formulate or even suggest a method of doing business that could take the place of corporate enterprise. If corporations were indispensable in times of peace because of their efficiency, they certainly are indispensable in times of war, and this is not the time to foster prejudices against efficient instruments.

While the fact that much more revenue must be raised by taxes because of the present emergency is not in itself a serious factor, it is important that such taxes be properly distributed and that no industry or form of industry be discriminated against in the levying of the tax burden.

Two of the most important features in the Revenue bill (H. R. 4280), which has already passed the House of Representatives, are the income tax and the excess profits tax. The income tax feature discriminates against corporations because they are not permitted in computing the amount of net income subject to the normal tax to deduct dividends received from other corporations subject to the tax. Individuals, including those doing business as copartnerships, on the other hand, are permitted to deduct such dividends. This discrimination has been called to the attention of Congress, and from the best information obtainable has been justified because certain members of Congress are prejudiced against corporations holding stock of other corporations, which prejudice does not extend to individuals holding such stock. If that be the justification for the discrimination, then it would appear that it should be removed at once, because, as above stated, this is a time to lay aside all prejudices and strive to do the serious work we have at hand with the tools we have available, using care not to penalize and thus impair any efficient instrument.

Members of the Senate Finance Committee have intimated that the English system of excess profits tax would be substituted for the scheme provided for in the House bill. The English system contains four salient features, viz.:

1. It imposes the tax upon every business whether it be conducted by individual, co-partnership, association or corporation.
2. It ascertains the excess profits by comparing the

average normal profits made before the declaration of war with the profits made after the declaration of war.

3. It provides for an adjustment in the profits in case the capital used in the business is increased or decreased after the pre-war standard of profits is ascertained.

4. It provides for an adjustment in case the taxpayer sustains a loss in any year after paying an excess profits tax, so as to offset the loss by prior or subsequent profits.

If we must have an excess profits tax upon the corporation in addition to the surtax upon the corporate earnings after they have been paid to the stockholder in the form of dividends, it seems most necessary that such tax be properly distributed and applied to all businesses upon a basis that will give no business an advantage because of the tax. The English system probably accomplishes that result to a much greater extent than the scheme proposed in the House bill, because of the salient features of the English act above indicated.

Southern Industrial Activities.

Since January 1 the Construction Department of the MANUFACTURERS RECORD published 23,616 items relative to industrial developments, building, financial and railroad operations and general business interests in the South and Southwest. Of this number, 5088 were published during May.

Under appropriate headings, items for the preceding four months have been detailed in monthly statements. The accompanying table presents the list of items for May:

INDUSTRIAL AND DEVELOPMENTAL.	
Bridges, Culverts, Viaducts.....	56
Canning and Packing Plants.....	61
Clayworking Plants.....	21
Coal Mines and Coke Ovens.....	206
Concrete and Cement Plants.....	7
Cotton Compresses and Gins.....	22
Cottonseed-Oil Mills.....	7
Drainage Systems.....	14
Electric Plants.....	66
Fertilizer Factories.....	7
Flour, Feed and Meal Mills.....	30
Foundry and Machine Plants.....	47
Gas and Oil Enterprises.....	162
Hydro-Electric Plants.....	11
Ice and Cold-storage Plants.....	29
Iron and Steel Plants.....	11
Irrigation Systems.....	0
Land Developments.....	52
Lumber Manufacturing.....	68
Metal-Working Plants.....	8
Mining.....	76
Miscellaneous Construction.....	27
Miscellaneous Enterprises.....	104
Miscellaneous Factories.....	148
Motor Cars, Garages, Tires, Etc.....	79
Railway Shops, Terminals, Roundhouses, Etc.....	11
Road and Street Work.....	296
Sewer Construction.....	46
Shipbuilding Plants.....	93
Telephone Systems.....	22
Textile Mills.....	42
Waterworks.....	59
Woodworking Plants.....	55
BUILDINGS.	
Apartment-houses.....	97
Association and Fraternal.....	36
Bank and Office.....	83
Churches.....	131
City and County.....	66
Courthouses.....	19
Dwellings.....	463
Government and State.....	58
Hospitals, Sanitariums, Etc.....	43
Hotels.....	58
Miscellaneous.....	43
Railway Stations, Sheds, Etc.....	33
Schools.....	365
Stores.....	178
Theaters.....	26
Warehouses.....	49
RAILROAD CONSTRUCTION.	
Railways.....	55
Street Railways.....	6
FINANCIAL.	
Corporations.....	80
New Securities.....	415
Fire Damage, etc.....	4,214
Machinery, Proposals and Supplies Wanted.....	223
Total.....	5,988
Previously detailed since January 1.....	18,528
Total for five months.....	23,616

*Previous to May, shipbuilding plants were included in items noted under heading of Miscellaneous Factories.

The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the past 10 months was 12,062,750 bales, an increase over the same period last year of 195,782 bales. The exports were 4,963,630 bales, a decrease of 13,880 bales. The takings were, by Northern spinners, 3,572,889 bales, a decrease of 246,248 bales; by Southern spinners, 3,843,034 bales, an increase of 284,507 bales.

Increase in Food Production Object of North Carolina Campaign

STRIKING SLUMP IN PRODUCTIVITY AND WEALTH OF NATURALLY RICH COUNTY—ACTIVITIES NOTED IN AGRICULTURE AND INDUSTRY.

[Special Correspondence Manufacturers Record.]

Raleigh, N. C., June 2.

In some counties in North Carolina there are extensive campaigns for a great increase in food production, but some are not keeping up with the procession. This is particularly the case in some counties where farm tenancy is greatest, this tenancy being one of the curses which has fallen upon this part of the country, in some counties 70 per cent. of the farmers being tenants.

The necessity of tremendous efforts to bring about food production is well illustrated by a rich county like Edgecombe, which in 1860 produced 46 bushels grain per capita, so it had grain to sell, but which fell in 50 years to only 13 bushels per capita, the same remark applying to hay, so that the county made but little more than a third of the hay and grain its own people had to have. There was a great decrease during the half century in cattle, milch cows, sheep and hogs, corn, rye, oats and potatoes, the people going in for tobacco, peanuts and cotton. The result is that at the end of the 50 years the per capita wealth in farm properties was only \$363, as against \$3386 in Iowa, a State which sells bread and meat to so much of the South, which for a number of years has not fed itself.

The greatest efforts are being made to raise enough food in the State this year without buying any from outside, but the spring has been one of the latest and most trying on record, and has been a big handicap.

The last Legislature enacted laws to aid tenant farmers, but not until next autumn will the story of violations of these laws be available. They were enacted at the urgent demand of Governor Bickett, a most determined executive, who may be depended upon to carry out the things which he undertakes to do.

The new plan of sowing oats at the last cultivation of cotton was demonstrated on a farm in Edgecombe last year, the sowing being broadcast when the cotton rows were last plowed and the soil was in seed-bed condition, so that the cost of seeding was represented by the cost of a bushel per acre. The oats made a fine cover crop during the winter, and at the beginning of May were a foot higher and a month nearer maturity than others. Soy beans or peas will follow the oats, these to be followed by clover; this to be plowed under and the field planted in corn, to be followed by rye.

It has remained for a boy to write a letter to the head of the Boys' Corn Club work in North Carolina which ought to stimulate all men to greater efforts. There are in North Carolina about 3500 Corn Club Boys, and about a tenth of these will spend a week in Raleigh next August, at the summer agricultural course at the State Agricultural and Engineering College, as they do each year. The lad who wrote the admirable letter is G. R. Brown of Durham county, and he says that on his three-acre farm he has planted corn, which in the fall will be succeeded by wheat. He adds:

"Our country is calling for bread, and it is the duty of our club members to make all they can on their club acres. A great responsibility is on my young shoulders, for my father is nearly an invalid, I am the oldest of seven children, and I have got to make a living for them. The farm is ours, and I think the ones who own the land are the ones to try the hardest to make bread. This war is something which has never come before, and we have got to do our best."

Mr. T. E. Browne, the head of the Corn Club work, is delighted with the letter, and says: "Let's all get together and carry out the slogan, 'Every Club Boy Feed a Family.'"

The sturgeon fishing on the northern stretch of the North Carolina coast has ended its season, and prices broke all records, the flesh of these fish fetching 25 cents a pound and the roe \$3 a pound on the spot. From the roe caviare is made. The roe from one sturgeon brought \$241. The fish are taken in the open sea, a few miles from the shore, in seines handled by small

power-boats. The roe is washed in sheds on the beach, packed and sent North for treatment. The catch of rock-fish or striped bass was large this season, and prices very high. In the sounds along the coast great numbers of hard crabs were taken during the winter, except during the worst cold snaps, their meat taken out, prepared and shipped to Crisfield, Md. This new industry in North Carolina is managed by Crisfield men, who have headquarters at Manteo, on Roanoke Island. There are plenty of scallops and shrimp also in those waters, but as yet their handling is not taken up. Further south, at Southport, below Wilmington, there is a large shrimp cannery.

The shad fishing in the lower sounds was poor during the season, which ended about three weeks ago, though it was better in the lower rivers running into Albemarle Sound than in a good many years. The demand for shad was great, and prices high. Over 300,000 herring have been taken at one haul of the seine at Avoca, this being the longest seine in the world—a mile and three-quarters in length.

The strawberry crop was well handled this season in Southeastern North Carolina, and few of the berries were lost. Their juice was pressed, put into barrels and shipped and large quantities were put up in brown sugar and thus preserved, both of these methods being new there this season. Prices for the berries were high, and the demand heavy. The scuppernong grape crop, always a reliable one, will be larger than ever this year, as there are a number of new vineyards, the largest being near Aberdeen, in the sand hills of Moore county. From this great vineyard the grape juice is shipped in tank cars to the Middle West.

Dare county, the heart of which is Roanoke Island, produces the largest figs in the world, the size of an orange, but this industry is small as yet. On the island peaches of remarkable size and flavor are now ripening, and there is one fair-sized commercial orchard.

The big lumber company which recently took over 167,000 acres of land in Dare county, and which is capitalized at \$6,000,000, is now building two towns for its employes, one for whites and the other for negroes. It is shipping the lumber to its big mill at Elizabeth City and vast quantities of other wood to its plant in New Jersey for the manufacture of wood pulp.

A lively campaign for the growing of more buckwheat than ever before in Western North Carolina is now in progress. It is no trouble to grow two crops a year, only 60 days' time being needed for maturity.

FRED A. OLDS.

Distribution of Italian Sulphur Supplies.

[From report by Consul-General Robert P. Skinner, London, England, May 11.]

An announcement has been made by the Minister of Munitions that in connection with the distribution of Sicilian sulphur the Italian Government has allotted certain specified quantities to each of the Allied Governments, and accordingly the British Government will purchase hereafter directly from the Italian Government the quantity allotted to Great Britain. The distribution in this country thereupon will be undertaken by the Ministry of Munitions. A committee has been appointed to deal with the matter, and it has decided to offer to supply imported sulphur in lots of not less than five tons for use in approved trades and industries. The prices per ton for the present will be: Flowers of sulphur, \$112; roll brimstone, \$102; thirds, \$60.83, including delivery to the purchaser's nearest railway station.

From the prices mentioned above a discount of 2½ per cent. will be allowed to recognized sulphur merchants and dealers, but not to consumers. Applicants claiming this discount must furnish satisfactory evidence that they were recognized sulphur merchants or dealers before the war.

What Corn Means to the World

[From Bulletin of June 2 of American Steel & Wire Co.]

Acreage	Year.	Production U. S. Bushels.	World production. From U. S. into U. S. Bushels.	Exported Bushels.	Imported Bushels.
96,738,000	1906	2,027,416,000	3,963,645,000	102,518,817	10,429
99,931,000	1907	2,592,320,000	3,420,321,000	83,200,872	10,184
101,788,000	1908	2,668,651,000	3,606,931,000	37,577,717	19,370
108,771,000	1909	2,772,376,000	3,563,226,000	36,205,650	228,275
104,035,000	1910	2,886,260,000	4,031,630,000	42,692,961	118,120
105,325,000	1911	2,531,488,000	3,481,007,000	61,572,963	52,569
107,083,000	1912	3,124,746,000	4,371,888,000	30,979,900	53,488
105,820,000	1913	2,446,988,000	3,587,428,000	45,286,759	865,254
103,435,000	1914	2,672,804,000	3,877,913,000	15,626,149	12,290,498
106,197,000	1915	2,994,793,000	4,194,586,000	48,263,642	9,894,498
105,954,000	1916	2,583,241,000	.....	53,543,227	.....

*Calendar year ending December 31.

The Kernel of Corn.

From the parts of the kernel of yellow corn the following materials and quantities are obtained.

The germ furnishes a valuable oil and oilcake. The hulls and cell walls, with the gluten, furnish the valuable cattle feed known as "gluten feed." From the starch, liquid glucoses and solid sugars are obtained.

From a bushel of corn (56 pounds) the following quantities of material are obtained:

1.50 lbs. Corn Oil.
1.75 lbs. Corn Oil Cake.
10.50 lbs. Gluten Feed.
1.25 lbs. Steep Water Solids.
41.00 lbs. 41 deg. Beaumé Glucose or
41.00 lbs. "70" Brewers' Sugar or
40.00 lbs. Dried Starch or
3 gals. 180 deg. Alcohol.

Products Directly or Indirectly Derived from Corn.

Starch.	Corn Oil.
Glucose (41 deg. Bé. — 45 deg. Bé.)	Corn Oil Cake.
Syrup (Glucose + Cane Molasses.)	Rubber (from Corn Oil.)
Brewers' Sugars:	Alcohol.
"70" Sugar.	Whiskey (Alcohol +)
"80" Sugar.	Distillery Grains.
"Anhydrous."	Hominy Feed, Meal or Chop.
Caramel Coloring.	Hominy Grits.
Gluten Feed (Hulls + Gluten + Steep Water Solids.)	Brewers' Grits.
Gluten Meal.	Corn Bran.
	Ensilage.
	Corn Stover.

In the evolution of plants and animals, species have appeared and disappeared and have left their story imprinted on the rocks and stones. The common "Horseshoe" of railroad cuts, the "Horseshoe Crab" of the New England shores, are the lonesome survivors of an age long past, and their near relatives are to be found in stone. Corn has but few relatives in the present world, and we must look to Palaeontology for its story. Some fortunate chance snatched corn from the jaws of oblivion and man has made it one of the greatest plants of the world.

When the story of corn is written it will prove to be a wonder tale. Everyone knows about the use of corn on the farm in the production of livestock. A comparatively few in our country knew corn as the delicious human food; in other corn-producing lands it is highly prized for the table. Very few people know how corn has built up the huge industries of alcohol, starch and sugar.

Corn very likely originated in or about New Granada, from whence its cultivation spread to Peru on the south and Mexico on the north. Finally, tucked away in some sailor's kit, it spread over the world.

The early Spanish explorers from Europe found corn in use in America when they landed.

It was found in use by the Indians when the first whites landed on the inhospitable shores of Virginia and Massachusetts. With the trek of the people into the seemingly never-ending West, corn was introduced everywhere. Now corn is successfully grown from Louisiana to North Dakota and the northern limit not yet reached. When snow is on the Illinois corn fields, Argentina is harvesting its crop.

The first varieties grown by the whites were the sweet tasting, small ear flint corns, of no particular name, and for lack of better ones were called after men who chanced to have good seed for neighbors: "Uncle John's corn," "Uncle Seth's corn," or some such name.

Today the dent and flint varieties are steadily but surely establishing themselves in all latitudes in the United States, and in altitudes of 5000 feet, and over, in the Rocky Mountains.

There is a large production of corn (over 600 bushels per square mile) in but few countries, while there is a small production in many countries. The large production is in the United States, Mexico, Austria-Hungary, Northern Italy and a small district in France.

The corn-producing lands are: Canada, Mexico, Argentina, Chile, Uruguay, Austria, Hungary, Croatia-

Slavonia, Bosnia-Herzegovina, Bulgaria, France, Italy, Portugal, Roumania, Russia proper, Russian Caucasus, Serbia, Spain, India, China.

Use Made of Corn.

	1909.
Corn Meal and Corn Flour.....	244,547,967 bu.
Breakfast Foods.....	{ Figures not available
Hominy and Grits.....	837,353,466 lbs.
Corn Starch, Glucose, Grape Sugar.....	40,000,088 bu.
Corn Starch.....	533,526,356 lbs.
Grape Sugar.....	159,060,478 lbs.
Corn Oil.....	8,164,175 gals.
Glucose, including syrups.....	769,660,210 lbs.
Distilled Spirits.....	32,069,542 bu.
Fermented Liquors (includes cerealine and grits).....	13,573,521 bu.

In the ordering of the universe all the conditions for making the United States the greatest producer of livestock in the world have been made. We are throwing away our heritage and not getting even the mess of pottage. Who will stop the mad race to sure destruction? Fed with alfalfa hay, 612 pounds corn will produce 100 pounds live weight with cattle; 357-468 pounds corn, properly fed, will produce 100 pounds live weight with swine.

Prussianism and the People.

[From Pan-American Record, issued by the Pan-American Petroleum & Transport Co.]

* * * German efficiency is a commonplace today, and it begins in the schools. It is the power of this training directed to noble ends that has given Americans of German origin the position they hold in the life and development of this country and that led President Wilson to emphasize our friendship for the German people, but he was careful to add that "the Prussian autocracy was not and could never be a friend of America."

The reasons for this fundamental antagonism between the democracy of this nation and the autocracy of Prussia are not far to seek, and though not originating with the present war, they have been cruelly demonstrated by it.

Bismarck was the arch-enemy of Liberalism; this atmosphere prevails in governmental circles today, and in the main is the *fons et origo* from which the present catastrophe has sprung.

The vigilance and all-embracing methods of the work of the Government is astounding. One or two facts showing the unsavory character of their activity may be given.

Less than 10 years ago the writer was engaged in translating a book written by a scholar of world-wide reputation. During this time it transpired that this gentleman had recently received a call from one of the best known universities in Germany. The faculty of the university was absolutely unanimous, but a representative of the Government refused to recommend the nominee on the ground that he was a Liberal in politics and would be unacceptable to the authorities at Berlin.

The rejected professor further told of another scholar in the same university—a man, too, of international fame—who, when he was assistant professor in a large university, was informed that because of his Liberal views he need never expect promotion, and only secured a comparatively humble appointment because of the importunity of a friend, who has had for many years great influence with the Government. That the penalizing of scholars because they entertain Liberal views in politics could continue is unthinkable, and there is evidence that governmental reform is on the *tapis* in Germany.

If one reflects on what is called the Three Class system that prevails in Prussia, it will be evident that this medievalism is doomed. The total of the taxes paid in each electoral constituency in Prussia is divided into three portions, and the voters into three corresponding classes. Each of these three classes elects not the representatives, but certain leaders who choose the men who are to sit in the Prussian Diet.

There are electoral districts in Berlin where one man constitutes the first class and where the hundreds who constitute the third class have no more power than this one individual. That this grotesque system should have survived to our day is eloquent of the power of despotism in Prussia, and gives point to the contention

of President Wilson that the Government and not the people are responsible for the foul deeds of the past two and one-half years.

Our people have shown abnormal patience with wanton attacks upon life and property, and a wave of patriotic enthusiasm swept over the land when President Wilson announced his intention to lead the people across the Rubicon.

We seek no territory or financial gain. The battle is fought to help to free the world from an awful menace and to break in pieces slavery's chains.

The war begun mainly in defense of and entirely at the command of hereditary rulers may end in sweeping out of control from the Ural Mountains to the Atlantic Ocean these last tenacious and ruthless defenders of feudalism and privilege, who will leave behind them a world impoverished by death and the maiming of myriads of the most valiant men, lands devastated and material resources of appalling magnitude destroyed, and all to satisfy the insatiate lust for power of men more cruel than Tamerlane and more inhuman than Nero.

The Junker class are Germany's foes, the sworn enemies of democracy, the despisers of the men whom they send to the trenches and into the submarines to do their dastardly work, and it is our imperative duty to use all the resources of the country to aid in striking from already trembling hands their blood-stained, dishonored sceptre.

Industrial Engineers Organize to Co-operate With Government.

The Society of Industrial Engineers, a permanent national organization, comprising men and women who are industrial engineers, professional technical engineers, accountants, managing executives of commercial and industrial activity, writers, educators and students, was organized in Chicago last week. The society will be permanently organized in Washington, D. C., June 15, on which date the directors have been called to meet.

Charles Buxton Going, for 20 years editor of the Engineering Magazine, New York, was chosen provisional president and pro tem. chairman of the board of directors, this board comprising 15 prominent men from various sections of the United States.

Temporary committees are now at work. Upon completion of the organization its services will at once be tendered to the Government, through Howard E. Coffin, chairman of the advisory committee, Council of National Defense, and such other committees as can utilize the services of the Society of Industrial Engineers.

The plan of organization adopted provides for a service or promotion bureau under the direction of a vice-president and divided into two sections, one advisory and the other performing.

This is separate and distinct from the organization of the society proper, although under the direction of the president. The function of this bureau is to list as soon as possible all the industrial specialists in the country who may be qualified to serve either as advisors or as actual directors of efficiency work.

From these two groups of advisors and performers the society will draw the talent necessary to carry on whatever work may be delegated to it in connection with perfecting preparation for war.

All men who possess qualifications that would enable them to serve in either or both of these sections are requested to get in touch with the acting secretary of the organization, G. C. Dent, 327 South La Salle street, Chicago.

High Prices for Leases on Indian Oil Lands.

Secretary Lane announces the receipt of a wire from the agent in charge of the leasing of Osage Indian oil lands to the following effect:

"All tracts offered for oil leasing today, aggregating 9120 acres, sold for \$1,997,000 bonus, far exceeding expectations and demonstrating the wisdom of the present regulations."

In addition to these bonuses, the Indians will receive a royalty of one-sixth upon the oil taken out of the lands. This is the highest price ever paid for undeveloped oil lands to the Indians.

News and Views from Our Readers

Southern Resources for War Materials Should Be Exhibited at Chemical Exposition.

CHARLES F. ROTH, Manager, National Exposition of Chemical Industries.

This is a chemical war, and must be fought by chemistry. Our chemists should be given a close insight into the materials the South contains for them, for the industries of the nation. Each of the chemical industries is furnishing its quota toward bringing the war to a successful close, whether it is the iron and steel, the various metallurgical industries, the pottery, glass or ceramics, paints, oils, varnishes, leather, glue or rubber, or if it be the fertilizer industry that makes the soil more productive of foodstuffs, whether it be the manufacture of soda bleach or gases, dyestuffs or explosives, all are equally bearing their share of the labor in supplying the nation with munitions to carry on the war.

Many of these in their primal state are of industrial use only, but placed to that use they are productive of munitions to wage the actual battle, having as their product the armament, explosives, protective covering for man and beast, guns, munitions and transportation means. They furnish the means of transport, the vehicles, materials of construction and communication (telephone, telegraph, wireless); they supply the hospital with medical and surgical apparatus, appliances, materials used in the operation and the cure of the wounded and the artificial for the real limbs carried away by shot and shell.

The men that are doing and accomplishing these things and who are in need of fresh sources of supply are coming to the Chemical Industries Exposition to meet their fellow-workers, to see the exhibits and learn where and how they can the better serve their country either by increased effort in production or by producing something new, to replace what can no longer be secured from what is now the enemy's country. These are the men that should be made intimately acquainted with the resources the South has available for their purpose; these are the men that will develop these and make them supply the needed materials. They are the financiers who should and do stand ready now in the time of the nation's need to invest their capital into products that not only will aid the nation but when war ceases will so stimulate industry in the South as to make it better fitted to meet the other sections of the world where industry has brought better conditions and prosperity.

No other section of our own country, no other industrial nation, is so favored with weather conditions as to make an industrial opportunity one that can be continued throughout the year without interruption.

The South can do no better thing than to make known its opportunities at the Chemical Industries Exposition in New York next September, and our financiers, industrial and scientific men can do nothing greater than to heed the message the South is bringing them.

The big men of finance and industry will be there. Will the South meet them? Will it live up to its opportunity?

The Railway Mileage Question from the Railroad Viewpoint.

L. H. BURGESS, District Passenger Agent Southern Railway Co., Baltimore, Md.

Referring to the article on page 56 of the MANUFACTURERS RECORD of May 10, letter from Mr. G. E. Cuttle, Charlotte, N. C., I beg to submit you the following facts:

While we have not always had our mileage books, Form Z, as referred to by Mr. Cuttle, on sale at all important cities east of Washington, this has always been true with respect to Baltimore, and also is true with respect to New York and Philadelphia at the present time, and has been for two or three years past.

However, independent of whether the mileage books have been purchasable at our agencies in the cities referred to, there has been no time when exchange passage tickets, in exchange for coupons from mileage books purchased by our customers at points south of Washington, have not been obtainable, and, therefore, had Mr. Cuttle applied at our office at 264 Fifth avenue, New York, he could have secured both mileage book and passage ticket

reading from Washington over our line, and which would have prevented his having to secure such ticket at Washington.

Mr. Cuttle is rather critical of the system for the sale and use of mileage books which afford a reduction from the regular fares; however, his letter is apparently written without full knowledge of the situation. It is true that he could not have secured such tickets at the Pennsylvania Railroad station in New York, Philadelphia or Baltimore, but the Southern Railway Co. maintains expensive agencies in these cities, and, as stated, both the mileage books and exchange tickets can be secured at these Southern Railway agencies.

How to Dry and Save Potatoes.

C. W. PATTISON, Pattison, Taylor & Hasselman, Cleveland, O.

In your issue of May 24 there is an article on potatoes, in which I find something of much interest, namely:

It is stated in said article that there are a number of factories engaged in drying potatoes in Germany. Can you inform me, by return mail, whether or not there is any such factory in the United States, or if there has been any commercial effort made in relation to the drying of potatoes, and, if so, where, in what amounts and who is back of the enterprise financially? Do you know what equipment is or would be necessary in the doing of such work, and where I can get information concerning it immediately?

[The American Steel & Wire Co. of Chicago, in a purely patriotic effort to awaken interest in this subject, is prepared to put inquirers into touch with methods for drying potatoes. That company has, we believe, done more aggressive work to educate American people into the importance of increasing the production, conservation and consumption of potatoes than anybody else in America.—Editor MANUFACTURERS RECORD.]

The War for Democracy.

CHAS. E. CHIDSEY, Pascagoula, Miss.

It is not amiss in passing to say that no one thought to call this war a war for democracy until the United States entered it.—Jacksonville Times-Union.

It is probable that the Times-Union is mistaken. The impression we have had from the start was that the war was for democracy; and, being so impressed, we have, on several occasions, explained why it was so regarded. For hundreds of years Europe has been in preparation for this struggle, which we hope will be the last—the struggle between feudalism and individual liberty, between autocratic divine right and democracy; and democracy has slowly, but surely, grown stronger, until now it promises to be the master of the field.

The answer to the above from the Mobile Register of May 28th ult. may be found in the columns of the MANUFACTURERS RECORD for August and September, 1914. So far as my readings go, the statement that the war in Europe was a war of autocracy against democracy was first made in an editorial in the MANUFACTURERS RECORD.

"Upon this hint I spoke," and then wrote a series of articles for the MANUFACTURERS RECORD on the history of German militarism, in which I endeavored to prove, and did prove, that the contention of the MANUFACTURERS RECORD was correct, that "the cause of the war was the fear that Germany had of the growing power of the social democrats of that nation, and that its purpose was to suppress democracy." These articles were written as an answer to the oft-repeated statement of grape-juice journalists that America had no interest in the struggle. Had this class of journalists and statesmen had their way, the United States would have made itself the ally of Germany by cutting off, in violation of the law of nations, all exports of arms and munitions to the Allies (after permitting Germany to purchase all she could before the British blockade shut her off), and France and England would have been crushed and we today would be grappling with the giant alone. Since 1914 America has come around to our way of thinking, but not until Germany with her U-boats had "gotten nearly all the underholt."

I see that some Congressmen have taken the leisure

they have found between "wind-jamming" and the expectation of "amber juice" to ask "What are we fighting about?" They ought to be relegated to the primer class of international law and politics. We are fighting for the rights of America against German barbarism and ruthlessness, and against Teutonic autocracy that would crush the democracy of the world.

The reports from Russia indicate that that country will pass through a "reign of terror," as did France in 1793, yet in spite of that the French armies put up a bold front and battled with the nation's foreign foes. I fear that Czar Nicholas and his Queen and all the nobility of Russia will suffer the like fate of Louis XVI and Marie Antoinette. I hope not, but then Russian autocracy deserves no sympathy, as its ruthlessness in trying to suppress the democratic aspirations of the people by its Siberian prisons and other horrors places it beyond the pale of sympathy. "Those whom the gods wish to destroy they first make mad," and Russian autocracy has been following the road of madness that leads to self-destruction.

An Authority on Industrial South.

ADELAIDE R. HASSE, Chief, Economic Division, The New York Public Library, New York.

I want to take this occasion to tell you how much I personally depend on the MANUFACTURERS RECORD in reference work in all matters concerning the industrial South.

The Business Outlook During War.

W. W. MORRISON, New Orleans, La.

During the first few months the effects of the war on business and economic conditions in Canada were reactionary. After this, these conditions steadily improved. This improvement was reflected in the exports and imports and in bank deposits, especially in the deposits of savings banks. In the fiscal year ending March, 1913, the excess of imports over exports were \$309,447,000. In the year ending March, 1917, the excess of exports over imports were \$333,881,000. On December 31, 1913, the deposits were \$993,413,000. On December 31, 1916, they were \$1,303,215,000. The deposits in savings banks increased from \$623,000,000 at the end of 1913 to \$888,000,000 at the end of March, 1917.

These records show that there was a change from a balance of \$300,000,000 against the country in 1913 to a balance above \$300,000,000 in favor of the country in 1917. When the ratio of this change is figured out it reveals in a very definite way the improvement in business since the war began. The detailed figures covering each year show that this improvement was not spasmodic, but was dependably continuous. The volume of business indicates that capital was steadily employed, and the increase in deposits makes it evident that it was employed on a profitable basis. This volume of business indicates, too, that labor was also steadily employed, and the marked increase in the deposits in savings banks makes it plain that wages have been good. This fact has been conspicuously mentioned by reliable authorities.

It is true that high prices had something to do with swelling the volume of exports as to value. This does not affect, however, the economic importance of the country having a credit balance instead of a debit, nor does it affect the importance of the increase in those deposits which, peculiarly, reflects the earnings of the laboring classes. Hence, these developments in Canada, it is fairly sure, have been along logical lines. For it was reasonable that the demands created by war, in one way or another, with the great sums put in circulation through financing it, would tax capital and labor to their utmost capacity. The very urgency of these demands meant, it is clear, that both would be employed on terms which would bring prosperity to each. Every student of economics knows that capital and labor, profitably employed, constitutes the primary elements of economic strength and business prosperity.

There is every reason for believing that the experience of Canada will be repeated in this country. The preparations for war being on a greater scale and the

vastly greater sums of money being put into circulation, in connection with our more favorable position, warrants the conclusion that the expansion of business and prosperity will really be more decisive and more potential here than it has been in Canada. Indeed, the records of the past forecast that the war will bring rare opportunities to lay the foundation for a great business and a great career that will be in keeping with the glorious era that can be expected to follow its close. Those who have the courage that always goes with a constructive vision will reap the harvest which these opportunities will bring. Those who lack these qualities will not.

Active in Road Construction and General Improvements.

G. C. ROGAN, Lakeland, Fla.

Geographically removed from close contact with or relations to war conditions, Lakeland is going on in the even tenor of its way, paving its streets, extending its electric and water lines, erecting public buildings and private homes and otherwise showing its confidence in the future. One hundred and seventy-five thousand dollars' worth of street paving is going on; the Elks Home, to cost \$50,000, is well under way; the contract has been let for the Federal building, to cost \$50,000; a sanitarium is just about completed, costing about \$10,000; one private residence to cost \$17,000 is in the course of construction, another costing \$9,000 is nearing completion, and 10 or 12 others, at a total cost of \$35,000, are in process of construction. This makes a total of close on \$350,000 now being spent or about to be expended for permanent improvements in one Southern town of less than 10,000 people.

In addition to the above, there is being expended in Polk county, of which Lakeland is the metropolis, \$1,500,000 for a county-wide system of 217 miles of sheet asphalt roads; \$325,000 for a special road district, embracing 45 miles of similar construction, and \$150,000 for a second special road district—a total of 287 miles of road and of \$1,975,000 now being spent on its construction.

Could Not Get Along Without It.

MISS LILLIAN A. FERGUSON, Secretary Gastonia Chamber of Commerce, Inc., Gastonia, N. C.

We certainly could not get along without the MANUFACTURERS RECORD, and I am enclosing the check of the Chamber of Commerce for \$4 in settlement of our subscription.

Radical Changes Suggested by Texas Correspondent.

HENRY C. FULLER, Editor "Southwest," Houston, Tex.

More than a year ago, if I mistake not, I said in a brief communication to your journal that in event of war between the United States and any foreign country it would be necessary to conscript from the very beginning. Why did I make such statement?

There are three dangerous elements in the United States that will one day end in the undoing of this republic unless radical steps are taken in the immediate future to bring about a change. Organized business, which includes all kinds of big enterprise, has for the past 100 years been fighting to obtain the cheapest labor possible. Big business, which unfortunately has the backing of the Government, has brought over millions of cheap foreigners, who have taken the place of American laborers. Every time a foreign immigrant landed in the United States he knocked one good American workman out of a job.

This truth I have endeavored to impress upon the minds of our people, but their ears and eyes are apparently closed. Foreign immigration has practically ruined this country. It has filled the land with aliens, spies and dangerous characters. The United States ought to close its doors to the admission of any foreign immigrant for a period of 50 years.

The big corporations, big business and big financial concerns are responsible for organized labor. They forced certain branches of labor to organize, and now the two elements are mutually antagonistic. One is the upper and the other is the nether stone, and between these two monstrosities of a republican form of govern-

ment the unorganized masses, the average wage-earners, are being ground to a lifeless powder. The unorganized laboring masses have no protection, and they suffer most of all when the necessities of life are seized upon between the producer and consumer by the food gambler and speculator and made to pay four and five prices. Organized labor, in order to meet these robber prices, calls for an increase in wages and gets it. The unorganized man must bear the brunt of it all and suffer. The railroads ask for an increase in freight rates and get that, in large measure, and still the unorganized masses, having no way to secure higher wages, because they are not and cannot organize, must pay this increase in freight rates.

This condition of things cannot stand always if this republic is to endure. The only solution is Government ownership of railroads and absolute control of food distribution after it leaves the hands of the farmer. This can be done, and it should be done. If the Government owned the railroads there would be no strikes, and therefore no necessity for labor unions, so far as railroad employees are concerned.

A publication with a wide influence and circulation as the MANUFACTURERS RECORD has should never lose a moment to point these troubles out and suggest a remedy.

Of Great Value.

R. W. LIDDLE, the First National Bank of Richlands, Richlands, Va.

I herewith enclose my check for \$4 for subscription. I find your paper of great value to me, and your support of the Government simply great. Keep the good work up.

Heavy Tax on Worthless Curs to Save Sheep and Goats.

H. H. HILL, Clondercroft, New Mexico.

I have before me the May 24 issue of the MANUFACTURERS RECORD, containing the picture of the 50 dead sheep and the two curs that killed them. This brought to my memory a neighbor of mine, who has a red bull and dog mixed that has killed some 30 goats of very fine blood. There is a goat ranch here in the mountains, and this (d—) dog goes there every night and kills a goat or two. I was talking to the owner of the goats just a few days ago. I was telling him of the MANUFACTURERS RECORD, and gave him some copies containing articles on the dog question, taxing them, etc. He said he hoped they made the tax \$50 per head. The owner of the dog says men are not in their right minds when they tax a man's personal property so heavily.

It would be a blessing if the Government would offer a bounty on those kind of dogs.

I have no dog, so I hope the Government will levy a tax of from \$50 up or have the curs killed. There are lots of them in this part that would bite the dust.

Hope you will have untold success.

Want a First-Class Nursery.

C. W. ROBERTS, Manager, Henderson Chamber of Commerce, Henderson, N. C.

Some of your subscribers may be interested in knowing that we offer to give a free site to a high-class nurseryman who will come to Henderson and establish a first-class nursery.

Storage Tanks of Tile.

Herewith are illustrations of fireproof cottonseed storage tanks of tile which have recently been erected by the Griffin Construction Co. of Atlanta, Ga., for the Buckeye Cotton Oil Co. at Atlanta and Charlotte, and for Swift & Co. at Augusta, Ga. In a letter to the MANUFACTURERS RECORD describing these tanks, Carroll Griffin, vice-president of the company, says:

"We are now building additional tanks for the Buckeye Cotton Oil Co. at Little Rock, Ark., and Memphis, Tenn., and also tanks for the Dixie Cotton Oil Co. at Little Rock and the Hodgson Oil Refining Co. at Athens, Ga.

"These tanks are built of special shaped, vitrified,

eight-inch, six-cell tile having a semi-circular three-inch hand-cut groove on the end of the outer cells. When a ring of tile is laid up this cut becomes a continuous groove into which the steel and concrete is placed. Dry cinders hold the concrete in proper position. Reliance

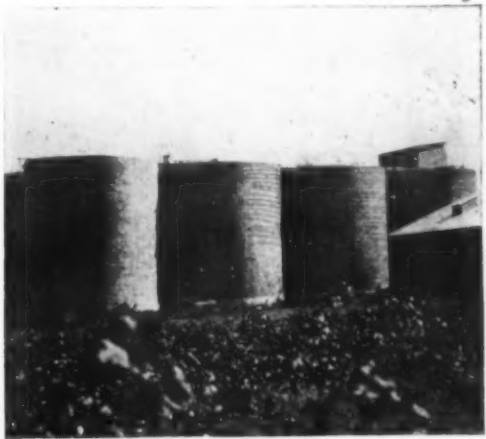


TILE TANKS OF BUCKEYE COTTON OIL CO., ATLANTA, GA. DUPLICATE BUILT FOR SAME COMPANY AT CHARLOTTE, N. C.

for resisting bursting pressure is mainly on the reinforced concrete, though the tile wall itself is capable of standing a considerable pressure.

"Tile for this work, composed of 60 per cent. shale and 40 per cent. fire-clay, was tested by the Armour Institute, Chicago, and stood an average of 112 tons.

"The roofs may be of either steel or reinforced con-



TILE STORAGE TANKS OF SWIFT & CO., AUGUSTA, GA.

crete, and the walls are found to carry the latter with the usual factor of safety. The floors are of concrete, resting on a bed of dry cinders.

"The size found to be most convenient for operation and economical of construction is 50 feet diameter by 60 feet high.

"The advantage of storing seed by this method is apparent. The cost is low. The upkeep nil. The insurance rate, depending, of course, on exposures, effects a very great saving. Indeed, it is estimated that ordinarily the insurance premiums on the present high-priced seed will pay for the improvement in two to four years."

Typewriters, Motor Cars, Etc., for Spain.

R. PEQUENO, Apartado Correos, Barcelona, Spain.

I am convinced your review is one of the leading industrial and commercial newspapers, and I inform you that I am specially interested to represent American manufacturers of rebuilt typewriters, bicycle accessories, motor cars and supplies.

Cement Tile Machinery Wanted.

LOUIS ROBLES GIL, 9a calle de Durango 150, City of Mexico.

I am looking for machinery for making fine tile of cement in colors for flooring. I have a factory for these goods, but I wish to put in additional machinery.

Phosphate Rock Supply of United States*

By R. W. STONE of United States Geological Survey.

Prior to 1914 the United States was producing annually close to 3,000,000 tons of phosphate rock, of which over 99 per cent. came from Florida, Tennessee and South Carolina. Florida produced more than 75 per cent. of the total output, including the great bulk of the material exported, which was over 40 per cent. of the total. With the beginning of the war the facilities for shipping phosphate rock to Europe were greatly decreased. Many Florida plants were shut down, and they have not resumed operations.

The proportion of exports to total production dropped from about 42 per cent. in 1912 and 1913 to 35 per cent. in 1914 and less than 14 per cent. in 1915. In 1915 the total production was only 60 per cent. of that in 1913. In 1916 the industry was in some areas practically demoralized, but there was nevertheless a gain over 1915. The total output in 1916 was 1,980,000 tons, valued at \$5,897,000.

PER CENT. OF PHOSPHATE ROCK PRODUCED, BY STATES, 1912-1916.

State.	1912	1913	1914	1915	1916
Florida	81.0	82.0	78.0	74.0	76.0
Tennessee	14.2	14.5	18.0	21.0	21.0
South Carolina	4.4	3.5	3.9	4.5	2.7
Other States .....	.4	.2	.1	.5	.3
	100.0	100.0	100.0	100.0	100.0

As shown by the table, Tennessee, in spite of decreased production has produced a larger proportion of the country's output since the war began than in time of peace. It would seem as if the Tennessee industry, which has not been bound up so much in the export trade and which is equipped in part with modern machinery for mining by modern methods, should develop while the European trade is restricted and while the industry in Florida and South Carolina is more or less dormant.

The deposits of phosphate rock in the United States are confined very definitely to the southeastern part of the country and to the Rocky Mountain region from the latitude of Salt Lake City, Utah, to that of Helena, Mont. Although by far the largest deposits are in the Western States, the production from that region is less than 1 per cent. of the whole, owing to the lack of a large market in the region at present and to high freight rates on the crude rock. The western rock-phosphate deposits are so extensive that, even if the entire world depended on them for its supply of phosphate, they would not be exhausted in many generations.

The Florida phosphate deposits comprise three classes of phosphate—hard rock, land pebble and river pebble. The hard rock is the highest grade, the land pebble is produced in the largest quantity, and the river pebble is not mined at present. The area of hard-rock deposits forms a narrow strip along the western part of the Florida peninsula from Suwannee county to Pasco county, a distance of approximately 100 miles. The land-pebble phosphate area lies just east of Tampa and is about 30 miles long from north to south and 10 miles wide. The sales of Florida phosphate have decreased greatly since 1913. In that year 2,500,000 tons was sold for \$9,500,000; in 1915 the production was 1,350,000 tons, valued at \$3,700,000. In 1916 the industry began to recover, and the output was over 1,500,000 tons, valued at \$4,170,000.

The South Carolina output consists of land-rock phosphate mined in the vicinity of Charleston. River-pebble phosphate occurs in the same area, but is not mined. Some of the South Carolina output has been exported annually. The sales have decreased from 169,000 tons in 1911 to 53,000 tons in 1916, and the value from \$673,000 to \$211,000.

The Tennessee deposits of rock phosphate are in the west-central part and extreme northeast corner of the State. The latter have not been mined. Three types are recognized and known by their colors as brown, blue and white rock. The white rock has not been mined recently. The brown rock comes from Maury, Giles, Hickman, Lewis and Sumner counties, and is sold under a guaranty of 70 to 80 per cent. tricalcium phosphate. The blue rock is mined in Lewis and Maury counties, and varies considerably in its phosphatic content. The sales of Tennessee phosphate dropped from 483,000 tons, valued at \$1,823,000, in 1914, to 390,000 tons, valued at \$1,328,000, in 1915. In 1916 there was a

partial recovery, the output being nearly 412,000 tons, valued at \$1,510,000.

The phosphate deposits of Kentucky lie between Frankfort and Lexington, and considerable quantities of rock have been mined near Wallace, but the State has been an insignificant producer of phosphate rock in recent years.

Phosphate deposits occur more or less interruptedly for a distance of 80 miles in the north-central part of Arkansas, and a small quantity is produced at Anderson, Independence county.

Four of the Western States possess vast deposits of high-grade rock phosphate, but the Western production amounts to only 3000 to 5000 tons a year. In 1916 it was only 1700 tons. Idaho, Utah and Wyoming are the producers. Montana is not yet a producer, although at Elliston, Garrison, Philipsburg and Melrose there are very extensive deposits easy of access and close to rail transportation. The small local demand for fertilizer and lack of cheap transportation will for some years retard the development of these Western deposits.

In the southeastern part of Idaho an extensive supply of high-grade phosphate occurs along both sides of Blackfoot River, in Fort Hall Indian Reservation, near Montpelier, and north of Bear Lake. A small quantity is mined in Bear Lake county.

The Utah deposits are east of Great Salt Lake, in the Wasatch and Uinta ranges, and east of Bear Lake. These deposits are extensive, but the material is leaner than the general run of Idaho phosphate, averaging nearer 60 per cent. than 80 per cent. tricalcium phosphate.

Western Wyoming also is rich in rock phosphate. The deposits are mostly in the Owl Creek, Wind River, Gros Ventre and Salt River ranges. Some of them are thick beds carrying 80 per cent. tricalcium phosphate and extending for many miles, and they constitute a reserve supply that is almost inexhaustible.

An estimate of the quantity of rock phosphate available in the United States was made in 1915 by the United States Geological Survey, and need not be revised to account for that mined in the meantime. It is repeated here.

ESTIMATED QUANTITY OF PHOSPHATE ROCK AVAILABLE IN THE UNITED STATES.*

Eastern States:	Long tons.
Florida	227,000,000
Tennessee	88,000,000
South Carolina	9,000,000
Kentucky	1,000,000
Arkansas	20,000,000
	345,000,000
Western States (Montana, Idaho, Utah and Wyoming)	5,367,000,000
	5,712,000,000

*Phalen, W. C., "Phosphate Rock in 1915," U. S. Geol. Survey, Mineral Resources, 1915, pt. 2, p. 238, 1916.

Although the total reserves as shown by this estimate are very large, the supply of high-grade rock is much less and should not be considered inexhaustible. Lands remaining in Government ownership that are known or believed to contain valuable phosphate deposits have been temporarily withdrawn from entry. The outstanding withdrawals are about 2,500,000 acres in the Western States and 120,000 acres in Florida. The work of surveying the Western phosphate lands is still going on.

Any statement as to probable developments in the phosphate industry when peace is declared is largely conjecture. So long as the war continues phosphate rock cannot be sent to the large consumer, Germany, and high ocean freight rates greatly restrict and practically stop shipments to other European countries. Furthermore, the demand for sulphuric acid for use in making munitions has raised the prices of acid so high that manufacturers of acid phosphate have been obliged to curtail production. This has reduced the quantity of rock phosphate used by manufacturers of fertilizers and increased the quantity of rock ground for direct application to the soil. It seems reasonable to believe that at the end of the war European nations will want increased quantities of phosphate, for their stores of foodstuffs will be low and intensive cultivation of the soil will be necessary. The demand will again fall largely on the Florida and South Carolina deposits, which are close to the seacoast, and the phosphate industry in those States may then look for marked improvement.

The Graciousness of Dallas as a Host.

Perhaps one of the most interesting features of the convention of the Interstate-Cottonseed Crushers' Association, recently held in Dallas, Tex., was a little act of thoughtfulness that will long serve to keep the members of the association reminded of the courtesy and hospitality of that city. Immediately after the convention was over, the executive committee wrote the following letter to those who attended and to those who could not come:

"Both those who honored us by giving their presence to the convention and those who could not come.

"We say 'could not come,' for we know they would have come could they have done so, but whether they came or not, we are enclosing to them all a copy of the program of the meeting in order that those who came will have a souvenir of an occasion which we hope was as pleasant as we tried to make it, and that those who did not come may see what we were so anxious to offer them.

"To us here in Dallas the entire occasion was one of unmixed pleasure. We are proud of our State, its broad prairies, its lands' unmatched fertility and its charming, invigorating and healthful climate. We are proud of our city, with its magnificent buildings, broad and well-paved streets, our beautiful parks and boulevards and our thousands of happy homes. But above all, we are proud of our people, made from those of all the States and foreign countries, and thus broad, cosmopolitan, kindly, intelligent, frank and hospitable. We are glad to have had you with us. We hope that those who came will come again, and that those who did not will some day do so.

"In the quiet of your homes read over the program, give us kindly thought and remember that Texas bade you 'good-by' with tender and loving heart, will keep your visit in fond remembrance and hopes to have you with us again."

The program of the meeting was an unusually attractive one, the spirit of patriotism being reflected in its design and arrangement. The front cover carried the American flag in proper colors, while each page had illustrations of scenes in our army and navy life, views of interesting places in Dallas and patriotic quotations of historic interest, making it altogether a souvenir that will be treasured as a reminder of one of the most successful meetings in the history of the association.

In handling the general details of the convention and in the final act of thoughtfulness at the close the Dallas committees have created for Dallas a most favorable impression that will long exist in the memories of its guests.

To Drill Additional Well in Terrebonne Field.

Houma, La., June 1.—[Special.]—The Terrebonne Oil & Gas Co. which brought in the first gas well in the Terrebonne field in April, is drilling another well in the proven district, and expects to tap the gas reservoir at a depth of 2700 feet within the next few days. The new well is now over 2000 feet deep. The same company will drill several other wells as soon as the pipe can be obtained.

The gas flow was struck in the first well when the drill penetrated a strata of shale rock. W. B. McCormick, the president of the company, believes that an oil pool exists beneath the shale rock, and it is his purpose to drill one of the new wells through the rock in search for oil.

The company is making arrangements to construct a 16-inch gas main to New Orleans for the purpose of supplying natural gas to that city. Actual work on the construction of the pipe line, it is said, will begin as soon as the pipe can be obtained.

Operations in all of the oil and gas fields in Louisiana are slowing up on account of the inability of the oil and gas companies to secure supplies of pipe. Pipe manufacturers have given notice that they cannot guarantee the delivery of new orders until 1918. Unless the pipe shortage can be met in some way, many new projects will have to be indefinitely postponed.

The Glenn Hosiery Mills Co., Mobile, Ala., has completed its installation and has a daily capacity of 30 dozen pairs of ladies' fine gauge cotton hosiery. Half of the machines are 200 and the other half are 220 needle. There is also a dye plant in position.

*U. S. Geological Survey Bulletin 686-J.

Prussian Militarism as Regarded by Oriental Peoples

Pascagoula, Miss., June 1.

Editor *Manufacturers Record*:

Your editorial, "By Its Accusations Tyranny Reveals Itself," is a most timely and pertinent one, especially the question which you ask, "Did it ever sink into the Prussian military mind that perhaps the German people who go abroad do not care to settle in German colonies if they can find equally advantageous locations in countries outside of Berlin influence? Perhaps not, because it would seem singular to that sort of mind for any individuals to prefer anything as being more agreeable than to be supervised, catalogued, indexed and generally minutely regulated after the fashion of Prussian law-makers and disciplinarians who do the Emperor's will."

The question in its pertinency suggests another question that appears equally pertinent when one considers much of the comment upon foreign affairs that appears in some daily journals, and it is, "Has it ever been considered that foreign countries, especially in the Orient, in which or near which Germany has established colonies, do not care to have the sphere of Germany's influence extended any further?" The question suggests itself because ever since this war began there has been much journalistic hysteria in this country over the fatal influence of Germany in India, China, Japan and other countries, and how Egypt and India would revolt and throw off the tyranny of Great Britain, and only a few weeks ago we were told that Japan would join with Mexico in an attack upon the United States. None of these things have happened, and so far as my readings have gone, no journal has stated why they did not happen. From the silence that has followed I have thought that perhaps these spasms were due more to the love of big scare heads than to any real fright or misapprehension of the truth. Be this as it may, it would be well for the public to thoroughly understand the situation, and I am pleased to see the *MANUFACTURERS RECORD* combatting this form of error.

Last week I wrote you a letter in which I set forth at length my reasons, deduced from the philosophy of history, why there was little or no danger of the Russian democracy proving false to the Allies and making a separate peace with Germany, and permit me now to trespass upon your patience to show that the danger of Germanic influence in other parts of the earth is more imaginary than real.

I have not the slightest knowledge of Oriental languages, but I have some knowledge of Oriental life and thought. One of the most striking characteristics of the Oriental mind is that in spite of its extreme conservatism it most readily grasps and understands the advantages of English and American democratic ideals, and readily adopts them. One may find in China, Japan and India, aye, even in Siam, hundreds, nay, thousands, of natives who have received a liberal education in the great universities of either England, France or the United States, and returned to their own countries saturated with European and American culture and democratic thought. In addition to this, the missionary schools of the United States and England are annually sending hundreds of natives to the Orient as Christian missionaries, who not only spread the light of the gospel, but also the lessons of American freedom. My reading shows me that one may easily find in the principal cities of India, China, Japan and Siam many men who are as deeply read in English and American history and literature and are as intimately acquainted with the trend of modern scientific and political thought as any of our leading journalists, and I have within the reach of my hand works written by Hindoos in English that Dean Swift might envy.

Many years ago two Chinamen visited Pascagoula who were students of the missionary school of Portland, Ore., and one of them gave a lecture on the customs of his country (the proceeds of the lecture was the first money raised for St. John's Episcopal Church in this city), and he spoke not the language of the streets and of the newspapers, but the English of Shakespeare and Milton. As he was only a "henthian Chinee," many of the audience were inattentive and disturbed him by their loud talking.

"In my country," said the lecturer, "we have two classes of people, the educated class and the uneducated class. The educated class can always be known where

found on account of the refinement of their manners, and their quietness in public or private; the uneducated may be known by their rudeness and their habit of talking loud in public or private. You have many uneducated people in this country, and in this house to-night."

After this sally the silence that followed was oppressive, and the lecture was finished without any more digressions.

Now, could I ask this man the question whether or not he thought that it would be possible for China to either directly or indirectly aid Germany against the Allies, he would reply:

"We Chinamen want China for our own people, and would gladly rid ourselves of any foreign interlopers, and yet at the same time we want China to be one of the leading nations of the world, and we know that this can only be by China adopting the most progressive ideas of the age. Christianity is not only spreading the light of the Christian religion throughout the Orient, but is making the people familiar with occidental thought and democracy. We have at our own doors examples of the methods of democratic England, France, Italy and the United States in governing their colonies and also of the manner in which Prussian militarism rules, and the Chinaman is not so simple as to wish to overthrow European democracy in order to become the prey of Teutonic militarism."

Turn now to Japan and ask this question of the Japanese statesmen, and they will answer with all the suavity of their nation:

"Japan is ambitious to be the ruling power in the Orient, and is desirous of extending her trade and of finding room for her rapidly-increasing population. The Japanese know that when this war is over that all questions between Japan and the United States may be settled through diplomatic channels, and even though this were not so, we are not so stupid as to commit the folly of striking a blow at European and American democracy that would strengthen the monster, Prussian militarism, which, should it become the ruling power in Europe, would extend its tentacles to the Orient and forever crush and ruthlessly crush all nations in their floods.

Ask Swami Vivekananda or some other leader of Hindoo thought this question, and he will answer:

"Are we Hindoos fools? For more than two centuries India has been under the rule of England, and, though there is much in English rule of India that we can justly criticize, every Hindoo knows that the English Government of India is the best that she has ever had, and we have no intention of lending our aid in defeating English democracy by offering ourselves as a victim upon the altar of Prussian autocracy. While we Hindoos desire the independence of our native land, we know that it can never come through Germany or Germanic influence."

Put the same question to an educated Egyptian, and you will get the same answer, for even the fellaheen knows that the English Government of Egypt is the best the land has ever had, and has saved it from the rapacity of the Turkish tax-gatherer.

Turkey, forgetting the episode of 1876 and 1878, became the ally of Germany in a pique over England's retention of the possession of Egypt, and because Germany stood between the Turk and the Christian powers when they wished to punish the Turk for the Armenian atrocities, but he knows now that he is being used only as a cat's paw to rake the Teuton's chestnuts out of the fire, and if Germany wins, Turkey will become a German fief, and if she loses, Turkey will be blotted off the map of Europe and Asia.

I do not wish to be understood that in advancing this argument to show that democracy will triumph in the battle in which it is now engaged; that American democracy should sit supine and fold its hands, "trusting to the Lord." On the contrary, though I believe in the triumph of democracy, I want it understood that it must fight, and fight strenuously, for as the homely old adage has it, "God helps those who help themselves."

The contest before us will call for the best that the nation has, and we should be up and doing, and, as President Wilson says, it is not a holiday pastime for amateurs, for—

"'Tis not sleepy business."

CHAS. E. CHIDSEY.

Southern Alluvial Land Association Changes Date of Meeting.

The date of the semi-annual meeting of the Southern Alluvial Land Association has been changed from June 11 to June 30, and the meeting will be held at the Chisca Hotel, Memphis, Tenn.

This association is a colonization and development organization to advance and better agricultural conditions and opportunities in the alluvial delta region of Arkansas, Mississippi, Louisiana, Tennessee, Missouri, Illinois and Kentucky. It does not buy or sell lands or otherwise engage in real-estate business. In its work it has the co-operation of the United States Department of Agriculture, the agricultural colleges and State experiment stations and the departments of agriculture and immigration of the railroads operating in this territory.

The headquarters of the association are at 1114 Bank of Commerce & Trust Co. Building, Memphis, Tenn., and the officers are: President, J. W. McClure, Bellgrade Lumber Co., Memphis, Tenn.; first vice-president, A. C. Lange, Chicago Mill & Lumber Co., Blytheville, Ark.; second vice-president, W. E. Hyde, Desha Lumber Co., Lake Providence, La.; treasurer, J. M. Pritchard, Gum Lumber Manufacturers' Association, Memphis, Tenn.; secretary, F. E. Stonebraker, Memphis, Tenn.; field secretary, V. H. Schoffelmayer, Memphis, Tenn.

To Deepen Beaumont's Waterway.

Beaumont, Tex., June 2.—[Special.]—Now that Beaumont is reaching a position of importance as a shipbuilding center and the ocean-going traffic through here is being constantly increased, the necessity for deepening the channel in the Neches River that connects this port with the Gulf is becoming more imperative. In order to bring the channel up to the requirements that deep-water traffic has already created, it is proposed that an issue of \$300,000 bonds be voted by the taxpayers of the Beaumont navigation district. Proceeds from the sale of these bonds will be used to dredge the channel from Beaumont to Port Arthur to a depth of 28 feet.

As a further means of improving the deep-water outlet of Beaumont and Orange, it is proposed that a bond election also be called in the Orange navigation district, and that the amount of money thus realized shall be used in deepening the Sabine-Neches Canal, which is used by both Beaumont and Orange. The Beaumont navigation district will meet part of the expenses, it is stated, of deepening the Sabine-Neches waterway.

Two Big Hydro-Electric Developments.

Details have been determined for two big hydro-electric developments additional to the other plants of the Western Carolina Power Co. of Charlotte, N. C. This corporation recently decided upon an increase of capitalization from \$300,000 to \$4,500,000, and its new plants will be near Bridgewater, N. C., and Camden, S. C. Near Bridgewater there will be 25,000-kilowatt volts alternating and near Camden 70,000-kilowatt volts alternating developed, the building of these two plants necessitating an extension of transmission lines and the building of an additional substation.

To Manufacture Corrugated Fiber Boxes.

A large plant for manufacturing corrugated fiber boxes will be built at Warwood, W. Va., by the United States Corrugated Fibre Box Co. of Indianapolis. The initial building will be a two-story brick and concrete structure 600 feet long by 80 feet wide, for which Charles E. Bacon of Indianapolis is preparing the plans and specifications. It will be equipped with machinery for a large daily capacity.

Chemicals, Dyes, Leather, Stationery, Etc.

PUNJAB NATIONAL TRADING CO., 191 Hornby Road, Manekbai Building, Bombay, India.

We are in need of aniline dyes and chemicals, sizing and soap chemicals, colored and white; writing and printing papers, stationery, bookbinding cloth and tracing cloth, tanned leathers, etc.

FOOD VALUE OF SWEET POTATOES.

Great Possibilities for Increased Use of Already Much Valued Farm Product.

Baton Rouge, La., June 1.—[Special.]—As the result of a campaign inaugurated this spring by Harry D. Wilson, State Commissioner of Agriculture, the farmers and business interests at the important trade centers in Louisiana have begun active work to construct drykilns for the preservation of the sweet potato crop. Five drykilns are now in operation, 10 new kilns are under construction, contracts have been awarded for building 30 more, and it is estimated that by the time the sweet potato crop is ready for harvesting next fall at least 200 kilns will be in use in the State.

Commissioner Wilson has employed F. H. Holloway, an expert in the construction of potato drykilns, to travel all over the State and explain how the kilns can be cheaply constructed and operated at small cost. Blueprints, showing plans and specifications for the construction of kilns, are being distributed by Mr. Holloway on his tours through the State.

From 30 to 40 per cent. of the sweet potato crop of the State has been lost in the past through rot and decay. The building of the drykilns will prevent this enormous waste and save the farmers hundreds of thousands of dollars.

Little attention outside of some of the Southern States has heretofore been given to the possibilities of the sweet potato and its value as a food crop for man and beast. In this connection the Jacksonville (Fla.) Real Estate Board has issued a bulletin pointing out how this perishable food crop can be turned into a staple product which will keep for months and ship long distances, and by the proper curing, warehousing and marketing of the Southern sweet potato and yam and the manufacturing of culls and surplus into by-products this crop can be successfully handled commercially, from which the following statements are gathered:

Even now the sweet potato is claimed to be the second most important truck in the United States, being exceeded only by the Irish potato.

Investigation has shown that the sweet potato crop is not handled properly, for it is estimated that about one-half of the amount stored is lost by decay. This loss reaches probably \$10,000,000 annually in the eight Southern coast States south of Virginia, which produce probably four-fifths of all the sweet potatoes and yams raised in the United States. In one State alone it is estimated that over 800,000 bushels are permitted to decay and rot yearly because of the method of storing in outdoor earth banks or hills.

Specially constructed warehouses for curing and storing the sweet potato and yam would practically eliminate this loss, which is a very serious one in these times, when everyone is trying to conserve the food supply of the country. The bulletin points out that this suggestion is not a theory, but an accomplished fact, as such warehouses have been in use for years in various parts of the country. The United States Department of Agriculture states that it has a record of 230,000 bushels thus stored for a period of 124 days with a loss of only 2.45 per cent., and that refers to a collection of widely scattered storage-houses operated by different men under varying conditions.

In addition to community or great central storage warehouses and canning and drying plants, small warehouses for curing and storing sweet potatoes can be constructed at a nominal cost by the farmer. The building may be of frame construction, sheathed on the inside with building paper and board ceiling, nailed to the studs. A temperature from 80 to 85 degrees is maintained for 10 days or two weeks for the purpose of curing the sweet potatoes and yams, and after curing an average temperature of 55 degrees should be maintained; it should not rise above 60 nor go below 45 degrees. Ventilators are provided in the roof for carrying out the moisture, and through which the temperature is kept to 55 degrees after curing.

The by-products manufactured from sweet potatoes offer a broad field for development. It is said the culls from potatoes can now be manufactured into seven different products. They may be canned or dried, like dried apples; they may be ground into flour, or dessicated, or they may be converted into denatured alcohol, starch or commercial stock feed, and a large amount of sugars is also available.

When the sweet potato crop is first dug, large quantities are rushed to markets by the farmers, resulting in

a depression of prices, and at such times the supply needed for manufacturing can be secured in the open market.

Uncooked sweet potatoes may be sliced, and then dried, either in the sun or in evaporators. To do this they are first washed and placed in a basket holder and immersed in boiling water for a short time, then taken out and cut into thin slices and exposed to the sun for two or three days. When ready to use they are prepared for the table by soaking and baking. Dried sweet potatoes thus prepared are one of the commercial food products of Japan. Sweet potatoes and yams prepared in this way should be as common as dried apples in our markets. Recently the methods of drying or "dehydrating" has been perfected, so that the cell structure is retained, together with the full garden flavor of the fresh vegetable.

In 1914 there were marketed 369,000 cases, or about 9,000,000 cans, of canned sweet potatoes. One bushel of sweet potatoes is sufficient for 15 cans. Last year at Cheraw, S. C., a canning factory was established for the purpose of canning sweet potatoes and yams; it has a capacity of 400 cases, or 9600 No. 3 cans per day; its profits were such that it expects to double its capacity this year. Like the utilization of cottonseed-oil mills for pressing oil from peanuts and soy beans, sweet potatoes are canned after most of the fruits and vegetables have passed out of season, and the canning season thus lengthened.

Sweet potatoes make good potato flour. It is mixed with wheat flour and produces fine pastries and cakes. A flour made from the Irish potato, mixed with wheat flour, is used in making the German "war bread," but it has less nutriment, less sugar and the taste does not compare with the flour from the sweet potato, which is attractive.

The Department of Agriculture says it is possible that the sweet potato will become one of the chief sources of alcohol in the United States. Experiments have shown that 11,000 pounds of sweet potatoes can be grown on one acre. It may be fairly stated in a general way that one bushel of sweet potatoes will yield one gallon of industrial alcohol. In most of the eight Southern States mentioned the manufacture and sale of alcoholic liquors has been prohibited by law, and some distilleries and breweries are idle. Such plants could be utilized for the manufacture of denatured alcohol and other by-products of the sweet potato.

In Maine, especially throughout the Aroonstock potato regions, the cull, damaged and lower grades of Irish potatoes are converted into starch in local starch factories. The average starch content of the Maine Irish potato is 18.29 per cent. The percentage of starch in the sweet potato is greater than in the white Irish potato. In all cases over 20 per cent. of starch was obtained from South Carolina sweet potatoes, and in one instance as high as 24 per cent. One acre has produced 2600 pounds of starch.

The value of the sweet potato as a cattle food is not generally understood. Three bushels of sweet potatoes are nearly equal to one bushel of corn in feed value. One-half pound of cottonseed meal or one pound of soy beans for each ten pounds of sweet potatoes supplies the deficiency in protein.

Cottonseed meal is produced in Jacksonville, Fla., and ground velvet beans, soy beans and cowpeas are manufactured at Gainesville, Fla., and other points in the South.

For manufacture into commercial feed the sweet potato would be thoroughly dried, ground and mixed with the other ground feeds mentioned.

There seems to have been little investigation into the utilization of the sugars contained in the sweet potato, but if it should be ascertained that these sugars (possibly in the form of glucose to be used with our cane syrups in the manufacture of table syrup or in some other form) could be profitably recovered, it should mean much to the South, and might give us some of the agricultural wealth which has accrued to the agriculturist in the sugar-beet territory of the West.

Possibilities for Development Offered by Texas Irrigated Lands.

San Benito, Tex., June 1.—[Special.]—Dr. S. Fortier, chief of the irrigation division, office of public roads and road engineering of the United States Department of Agriculture, accompanied by W. L. Rockwell, senior irrigation officer in Texas of the same department, have just finished a tour of the irrigation

districts of Texas, including the lower Rio Grande Valley. Their investigations included the land reclamation work which is being carried on on an extensive scale in what is known as the shallow water belt of Western Texas and the other irrigation sections further to the south and east. Dr. Fortier expressed himself as wonderfully impressed with the agricultural development that is being carried on around Plainview and Lubbock, in the shallow water region, where many centrifugal pumps have been installed upon wells and are each supplying water sufficient to irrigate anywhere from 100 to 160 acres.

In their trip through the lower Rio Grande Valley Dr. Fortier and Mr. Rockwell went over the irrigated lands around San Benito, Mercedes, McAllen, Mission and other towns. They also visited the irrigation sections around Laredo, Cotulla, San Antonio and El Paso. The survey which Dr. Fortier has just made of Texas was done largely with a view to ascertaining just to what extent this State is prepared to do her part in the present war in the matter of food production. He gave his impressions as follows:

"In all three of the prime essentials—men, money and food—which are needed to carry on the war, Texas will provide its full quota. This was the thought uppermost in my mind as I talked with army officers and privates along the border, interviewed business men and bankers in cities and studied the wonderful resources of your arable and irrigable lands.

"It is nearly 14 years since I first visited the lower Rio Grande valley for the purpose of instituting some irrigation experiments, and subsequent events have but confirmed the favorable impressions I then formed of that locality. Some years later I had the good fortune to secure the services of W. L. Rockwell, one of the most experienced irrigation engineers of California, for work in Texas, and for 10 years he has labored conscientiously and efficiently for the upbuilding of Western Texas.

"It is just possible that with the beginning of 1918 our office will be obliged to terminate some of its former lines of work in order to take up a number of new irrigation problems, particularly along the Rio Grande. As I view the situation the need of drainage in parts of the irrigated lands of the lower Rio Grande Valley is becoming urgent. If it can be arranged, a number of engineers will be transferred during the next winter from some of the colder Northern States to do drainage and other work in Texas. These will be placed under Mr. Rockwell's supervision.

"We would also like to continue and extend the investigation of pumping plants. When one considers that every gallon of water which is used in irrigation in this part of the State is lifted from 10 to 90 feet and in some cases 150 feet, the need of economic and efficient equipment is apparent.

"Getting rid of the silt in the water of the Rio Grande is another of your troubles. Consider that the American Rio Grande Land & Irrigation Co. has practically solved this problem by the use of a large settling basin adjacent to their pumps on the river.

"The question of conveying and distributing the water pumped from the Rio Grande also needs attention. Up to the present only earth ditches have been used, but we believe the time is near at hand when more impervious channels will be required in order to lessen the large seepage losses.

"These and many other hydraulic problems confront the irrigators of Texas, and I trust our office can lend a helping hand in their solution. I do not think the people of Texas realize what a storehouse of wealth exists in the fertile soil and semi-tropical climate of the lower Rio Grande. Mr. Rockwell informs me that along the southerly fringe of Hidalgo and Cameron counties more than 500,000 acres can be irrigated, provided sufficient water is stored in one or more of the tributaries of the river. At present only about 87,000 acres are actually irrigated, and with development which this acreage represents many mistakes have been made. Notwithstanding these setbacks, I have an abiding faith in the ultimate outcome. In course of time Texas will possess an American Egypt where every plant that ever flourished in the land of the Pharaohs will be harvested in abundance on American soil."

John R. Dover, secretary of Ella Mill, Shelby, N. C., and associates will build a weaving shed to be equipped with 40 looms, driven by electric power, for a weekly capacity of 10,000 pounds of cloth specialties. Electricity will be furnished by the Southern Power Co.

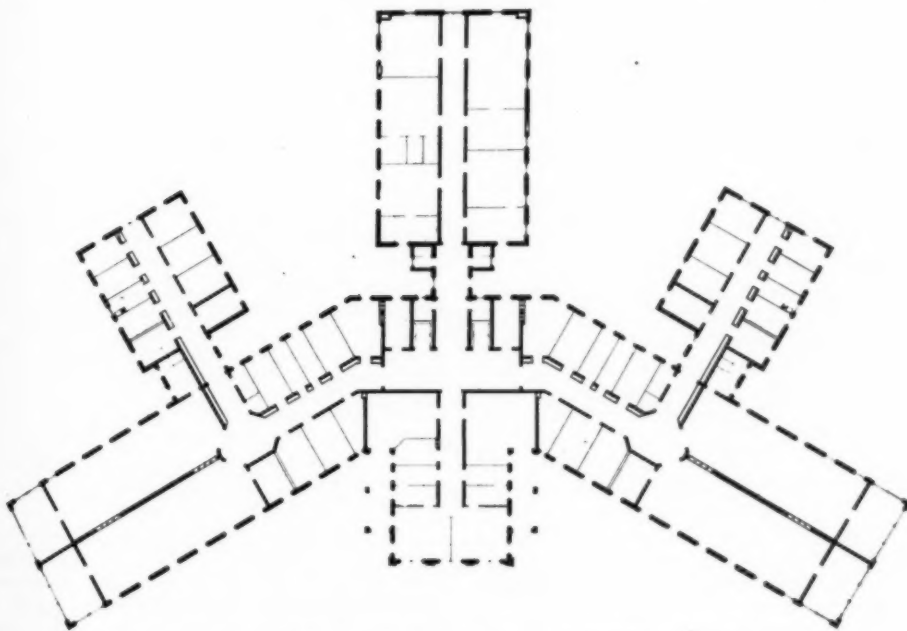
\$125,000 HOSPITAL FOR TENNESSEE COAL IRON & RAILROAD CO. AT BIRMINGHAM.

The Tennessee Coal, Iron & Railroad Co., with main offices at Birmingham, has taken a distinctive step forward in its determination to erect a large hospital to be equipped with complete facilities for surgical and other hospital work. The purpose of the company and the work of the hospital will be to prevent disease as far as possible, and improve the general health of the company's employes and their families. A site in Birmingham's suburbs has been selected, centrally located on elevated ground on Flint Ridge between Fairfield and Ensley, and between the Red Mountain ore mines and the mines of the Pratt coal field.

The structure will consist of one main building and two wings extending from it at a slight angle, 253 feet from wing to wing, three stories and basement, and of brick construction. In addition to bedrooms, ward space, etc., there will be sun parlors at the extreme end of each of the wings on each floor except the ground floor. Plans and specifications for the building are being prepared by Gustave W. Drach, Cincinnati, and its cost will be about \$425,000. An accompanying illustration shows the building as it will appear when completed, while the diagram indicates its general contour, extent of its ward space, corridors, etc.



TENNESSEE COAL, IRON & RAILROAD CO.'S HOSPITAL.



SECOND-FLOOR PLAN OF TENNESSEE COAL, IRON & RAILROAD CO.'S HOSPITAL.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Glass Work and Instruments.

N. V. c. h. J. C. TH. MARIUS, Ganzenmarkt 4-10, Utrecht, Holland.

The MANUFACTURERS RECORD greatly interests us, and we daresay find there useful information. We deal with all kinds of instruments and glass work for chemical, bacteriological, pharmaceutical, hygienic, botanical laboratories, physical and meteorological instru-

ments for institutes and schools, being furnishers to the universities, governments and municipal laboratories in Holland, to agricultural and technical schools and institutes, industrial laboratories etc.; also interested in raw materials for manufacture of instruments, being makers of small instruments.

For the Trade of France.

BABES JEUNE, 23 Rue due Temple, Paris, France.

I offer my services to manufacturers who desire an agent in the French market. The articles of interest to my customers are: Tools for every branch of industry; automobiles; machinery of every kind; hoisting installations; heating and lighting plants; supplies and equipments for factories and mines; wood for building purposes; railroad supplies; culinary utensils; sanitary goods; dust and dirt removers; iron hardware, etc.

From a London Firm.

JOHN G. MURDOCH & Co., 91 and 93 Farringdon Road, London, E. C., England.

We have done a considerable business with the States for the last 50 years, and we hope that after the war we will do double or treble what we have done with your country. Just now there are many prohibitions in vogue, and none of us have got much space as far as freight is concerned; notwithstanding, remember we are interested in everything appertaining to goods musical; we are also interested in a business in Australia who handle all sorts and conditions of goods.

Colombia Wants Oils.

TORNABEL & Co., 90-96 Wall Street, New York.

We have a letter from J. Barrios & Caballero, Girardot, Colombia, appointing us their buyers in this country. They write us to communicate with you in regard to the names of the manufacturers from whom we can obtain the following: White codliver oil; turpentine; linseed oil, boiled; commercial almond oil; castor oil.

France Wants Chemical Products.

EXPORT UNION, 26 Rue Richer, Paris, France.

The goods which interest us are chemical products for use in manufacturing pharmaceuticals. We would be willing to take exclusive agencies for some firms. We export cigarette paper, and would be happy to get some new outlets.

Cotton and Stationery Products Wanted.

S. A. V. ARUNAGIRI, CHETTY & Co., Davangere, India.

Register us as subscribers and supply the MANUFACTURERS RECORD punctually. We wish to deal with leading American manufacturers of cotton and stationery goods, and shall thank you to ask them to send us samples, with quotations.

Opportunities in Dominican Republic.

J. JULIAO, San Pedro de Maorris, Dominican Republic.

All lines can be represented here, as there is a probability of this country being greatly developed owing to the United States' intervention, which will open a new field for industrial, commercial and agricultural enterprises.

Cement Machinery for Honduras.

E. W. MUDGETT, Ceiba, Honduras, C. A.

Put me in touch with cement machinery makers. The raw material is here, and wish to establish plant if price is not prohibitive.

Cigars, Tobacco and Leather.

FORTUNATO HABIB, Malta.

Put me in communication with firms engaged in exporting leathers and box calf for shoes; also cigars and leaf tobacco for export.

Organization of North Carolina Woolen Mills Effected.

Organization has been effected by the Yadkin Woolen Mills, Maiden, N. C., recently incorporated with \$50,000 capital. This company will operate two sets of woolen machinery driven by water-power, and has purchased all its equipment. Its officers are: B. M. Spratt, Jr., president-treasurer; John R. Hagaman, vice-president; G. E. Mauney, secretary.

The Iron, Steel and Metal Trades

GOVERNMENT ORDERS DOMINATE STEEL TRADE.

New Contracts Call for 176,000 Tons Forgings. Machine Tool Prices Higher—Pig-Iron Market Unsettled.

New York, June 4—[Special.]—Interest in the steel trade is now centered in the placing of Government contracts for ordnance, ammunition, structural material, and ships. Some large contracts for ordnance placed last week include three to six-inch guns which require monster forgings weighing 11,000 tons for three guns. Another contract calls for 1,400,000 high explosive three-inch shells at \$10.50 each and 1,000,000 three-inch shells at \$10.55 each. The former contract calls for 10,500 tons of steel forgings, and the latter for 7500 tons. It is conservatively estimated that the ordnance contracts now being executed call for as much as 176,000 tons of steel forgings. Other large contracts only await appropriations of funds by Congress to become effective.

The 7,500,000 three-inch shells, upon which the War Department took bids last week, will require 56,000 tons of steel forgings, which must be purchased by the successful bidders. It is also expected to place additional orders which will require approximately 100,000 tons of steel rounds and forgings. Ordnance manufacturers along the Ohio River are preparing to execute contracts for large guns, and machine-tool makers in the same district are in readiness to commence work on a number of tools for arsenals and navy-yards, as soon as the Government releases specifications. Nearly all kinds of machine tools, both metal and woodworking, have been advanced 10 per cent. by Cincinnati manufacturers, and in the local district prices of automatic screw machines and drill presses have been advanced 10 to 12½ per cent.

A feeling of conservatism as to steel purchases is growing among jobbers and manufacturing consumers. It appears to be the common view that the United States, being engaged in war, will eventually slow down many activities of the people whereby the ultimate consumption of steel will be reduced. Jobbers are still endeavoring to carry full stocks, and, indeed, the stocks of many jobbers at present are less than they would like to have, but on the other hand there are jobbers here and there who have had excess stocks, and they are now quietly disposing of the extra material on hand. Iron and steel authorities agree that they have all the business they can handle this year, and many of them are booked up to the middle of 1918. The United States Steel Corporation is out of the open market, but it is nevertheless booking tonnage for the Government and endeavoring to take care of its regular customers.

Steel billets were offered a little more freely last week in the Eastern territory, but there is a wide range of prices. In the past few days there have been offerings of 5000-ton lots of soft steel rolling billets at \$80 and \$90 per ton, but it is understood that some purchases could be made as low as \$75, while, on the other hand, some mills are asking as high as \$95 f. o. b. mill, Pittsburgh base, for shipment in the next few months.

There is no relaxation in the demand for tinplate destined for the food producers, and the mills are diverting orders from regular customers without complaint from the buyers, who see the necessity for such action by the manufacturers. Orders are piling up, and will have to be attended to later in the year. This means very heavy business in the fall and mills running to full capacity to catch up. The market is a purely nominal one as to price at \$8 to \$8.50, the prices being quoted from what the mills say they would sell if they had any tinplate to offer. Stock plants are going about the same way.

Eastern Pennsylvania plate mills continue to be besieged for small lots of tank, boiler and hull plate, the high prices quoted apparently not disconcerting buyers. Several new export inquiries have made their appearance. The plate mills are quoting 7½ cents per pound minimum for tank plates and 8½ cents per pound for small lots. Ship plates are at 10 cents per pound, and marine boiler plates have sold at the startling prices of 16 to 20 cents per pound.

The Italian Government placed a contract last week

for 40,000 tons of wire with American wire drawers, calling for the payment of about \$3,680,000. The order includes 40,000 tons of barbed wire and 5000 tons of plain and other wire products for shipments in monthly instalments over the second half of this year. Most of the foreign orders for barbed wire have been for galvanized, although a few thousand tons of painted barb wire have been shipped into the fighting zone. Domestic consumers of wire are still being compelled to confine current purchases to about 50 per cent. of their normal requirements, but specifications against previous contracts are coming in with a rush. Shipments against these orders are being made at the rate of over 200,000 tons per month by the American Steel & Wire Co. About 210,000 tons were distributed in May, while new business, including the large foreign orders accepted, fell short of 150,000 tons.

Recognizing the importance of providing more adequate equipment to be able to give more efficient service to shippers, domestic railroads are coming into the market for cars and locomotives in more generous measure than for six weeks past. Last week orders placed and valued at 10,000,000 called for 140,000 tons of steel, including rails, and inquiries now in the market call for 260,000 tons of steel, of which about 180,000 tons will be required for cars alone. It is estimated that the orders now under negotiation for domestic roads will call for the expenditure of \$54,000,000, of which \$32,000,000 are for cars and \$22,000,000 for locomotives. Since May 1 orders have been placed for 5550 cars, including 2000 for Canadian roads, and 398 locomotives. Domestic roads would place large rail orders in the aggregate for shipment during the next nine months if the mills would accept the business. There would be no question concerning the payment of large premiums over the so-called official price.

Standard steel pipe is bringing various prices from the independent manufacturers, according to tonnage and the time of delivery. On standard pipe the leading interest's 55 per cent. list is still in effect, the independent list being 49 per cent., or six points higher. Boilers are very scarce in the open market, the producers being sold up to regular buyers for months in advance, and deliveries are slower than formerly on account of filling Government orders.

Pittsburgh mills making refined iron bars advanced their prices last week \$5 a ton to \$4.25 for carload and larger lots and \$4.50 for less than carloads. Some of the mills have been quoting \$4.25 for several days past, the price now being minimum on any business. Since early March bars have advanced one cent per pound. The market from early December to early March was unchanged at \$3.25.

When compared with previous months, the steel market during May was generally quiet, and there is now relatively little forward buying, while the prompt buying, although insistent, does not run into tonnage, so few mills have any material to offer. Prices for prompt shipment will show an advancing tendency, while prices for distant delivery remain stationary.

The pig-iron market last week showed a slightly unsettled condition. Sellers of basic and Bessemer iron advanced their prices to \$50 valley for Bessemer and \$42 for basic, and there is little doubt that the market will shortly be established on that basis. Merchant blast furnaces took contracts for 140,000 tons of pig-iron in the past week in the various distributing districts of the country. This makes total contracts 500,000 tons since the first of May. In general the market is less animated, but selling interests are less aggressive for business, and as capacity is being gradually taken up prices are advancing. East of the Allegheny Mountains sales of 55,000 tons were made, including 35,000 tons for export, mainly to Japan, and 6000 tons more are pending for the same country. Machinery manufacturers in New England continue to purchase numerous small lots of foundry grades from Buffalo furnaces for prompt shipment, as they have been cut off from Eastern Pennsylvania and Virginia by railroad embargoes.

(Dealers' average buying prices for gross tons.)

Bessemer billets (nominal).....	\$30.00—\$35.00
Open-hearth billets (nominal).....	30.00—35.00
Open-hearth sheet bars.....	30.00—100.00
Bessemer sheet bars (nominal).....	30.00—100.00
Forging billets.....	100.00—110.00
Wire rods.....	30.00—35.00
Rails.....	60.00—61.00

(Dealers' average buying prices for pound lots.)

Tank plates.....	\$4.50—\$5.00
Steel bars.....	3.75—4.00
Refined iron bars.....	4.25—4.50
Steel hoops.....	4.00—4.50
Cold-rolled strip steel.....	7.50—8.00
Sheets, No. 28 gauge.....	7.00—7.50
Galvanized sheets.....	9.25—9.75
Wire nails.....	3.50—4.00
Cut nails.....	3.50—4.00
Plain fence wire, base.....	3.45—4.00
Barb wire, galvanized.....	4.25—4.50
Railroad spikes.....	4.00—4.50

PIG-IRON.

Bessemer, Pittsburgh.....	\$50.95—\$55.00
No. 2 foundry.....	43.95—44.95
Basic, valley.....	45.95—46.95
Gray forge.....	42.95—43.95
Basic, Philadelphia.....	42.50—43.00
No. 2 foundry, Northern.....	44.75—45.75
Low phosphorus.....	78.00—82.00
No. 2 foundry, Buffalo.....	45.00—47.00
No. 2 South, Cincinnati.....	40.90—42.90
Northern foundry, No. 2 Cleveland.....	44.30—46.30

SCRAP-IRON AND STEEL.

Heavy melting steel.....	\$31.00—\$32.00
Steel car axles.....	50.00—55.00
Iron car axles.....	47.00—48.00
Low phosphorus.....	44.00—45.00
No. 1 cast scrap.....	25.50—26.00
Heavy cast scrap.....	23.00—24.00
No. 1 railroad wrought.....	34.00—35.00
Cast borings.....	15.75—16.00
Machine-shop turnings.....	15.00—15.50
Railroad malleable.....	31.00—32.00

METAL MARKETS QUIET AND UNSETTLED.

Indications Point to Smaller Demand for Copper—Fair Buying in Lead and Spelter—Tin Less Active.

New York, June 4—[Special.]—Unsettled conditions again marked the metal markets last week, and while prices in most instances were higher, they appeared to be due to manipulation of holders than for any increase in the actual buying.

Conflicting reports circulated in the copper industry, and it is very hard indeed to actually analyze the present condition of this market. In an interview one of the largest producers said that "the copper situation was in good shape, and the market has an excellent undertone. Domestic consumers are realizing that demands for future copper will be enormous, consequently they are coming into the market with their orders. The copper trade looks for prices to steadily harden pending some announcement as to the requirements of the Government for the last half of the year. Predictions have been made that, commencing with June, 1917, copper will not sell below 30 cents a pound throughout the rest of the year."

Despite this very optimistic statement, it is reliably reported in the trade that one of the largest brass mills will cease operations in the near future, owing to lack of orders. This mill, which has been operating almost entirely on export orders for brass rods and discs, was rated last autumn among the five largest copper consumers in the country, with a monthly consumption of over 10,000,000 pounds. Owing to the completion of outstanding contracts, however, and the lack of new orders for rods and discs, it has decided to close down. Other brass mills, who are also heavy tonnage producers of rods and discs, are likewise getting to the end of their contracts. The matter is worthy of consideration as indicating a smaller domestic demand for copper.

There were sales last week of prompt and June lead at 11.50 cents, and while nothing lower than this is quoted in the outside market, it is known for a fact that several of the producers are taking care of customers' requirements to the best of their ability at lower prices. The American Smelting & Refining Co. continues to hold their settling price down to 10 cents, so that criticisms that are heard in certain quarters that the lead producers are exploiting the situation are not justified.

Producers at St. Louis last week sold third quarter spelter at 9½ cents in fair-sized quantities, and this appears to be the minimum for this position today, although prompt and June are still available at 9.37½ cents. So many producers are engaged in selling on a hand-to-mouth basis that it makes a good amount of competition on prompt delivery business. Actual figures are not at hand to show how the production is going, but it is known to have been curtailed, and is not at present much, if any, in excess of the reduced consumption. Most of the small old-time smelters have

ceased operations, and not a few of the larger plants have also found it unprofitable and have retired from the field, thereby correcting the oversupply.

The tin market was dull and unsettled last week, particularly on spot. The Atlantic deliveries for the

month are declared at 3200 tons. The deliveries at the Pacific coast are not known yet, but are estimated at 1000 tons. The stock and landing stock is reported at 4402 tons, of which 1487 tons are actually in stock, 2915 tons on steamers at dock.

THE WEEK'S PRICES.

	Copper.		Lead.		Spelter.	Tin.
	Lake.	Electrolytic.	A. S. & R. C.	Independent.		
Monday, May 28.....	31.50-32.50	32.25-32.75	10.00	11.50	9.42½-9.67½	65.00
Tuesday, May 29.....	31.50-32.00	32.25-32.75	10.00	11.50	9.42½-9.67½	64.62½
Wednesday, May 30.....	31.50-32.00	32.25-32.75	10.00	11.50	9.55-9.67½	64.00
Thursday, May 31.....	31.50-32.00	32.25-32.75	10.00	11.50	9.55-9.67½	62.75
Friday, June 1.....	31.50-32.00	32.25-32.75	10.00	11.50	9.55-9.67½	62.75

*Holiday—no market.

Southern Iron Growing Scarcer at Advancing Prices.

Birmingham, Ala., June 4—[Special.]—Pig-iron in the South grows more scarce each week, and while sales are reported right along, in the main they are in small lots and regular customers are the more fortunate in getting the product. Quotations for iron, both for the balance of this year, where obtainable, and for the first half of next year, continue to take on strength. Another advance has been announced and intimation given of still further increases. No. 2 foundry iron, delivery during the fourth quarter of this year and the first half of 1918, is being quoted at \$40 per ton, though a sale or two during the past week has been announced, delivery during the first half of the coming year, at \$38, which appears to be the minimum. Sloss-Sheffield Steel & Iron Co., the Alabama Company and others are holding back from the market except at \$40 per ton, No. 2 foundry, standard, next year's delivery, while Clifton and other special brand and special analysis irons bring from \$1.50 to \$2 per ton premium. "Out of the market altogether" is a common phrase to be heard in the South, meaning that there is no iron to be offered for delivery during the balance of this year, and no desire is manifest to sell for next year's delivery. Estimates have been made of the probable make for the balance of the year, and there is a close margin on what will be manufactured and what has been sold for delivery during the last half of this year. The make is to be somewhat increased in Alabama at once, the Alabama Company placing its No. 2 Ironaton furnace in blast. Lack of sufficient raw material and blowing power prevents the operation of both of the Ironaton furnaces to the maximum, but with the Gadsden furnace the Alabama Company should be getting 500 tons of iron a day from now on. Within another two weeks the Shelby Iron Co. will have its No. 2 furnace at Shelby in operation, one to be on charcoal iron and the other on coke. Furnace company officials here are giving every attention to production, so urgent is the demand for the product. Recent reports to the effect that some of the larger consumers were shaping up their business so as to bring about more or less curtailment in the consumption of iron has so far failed to reduce the needs.

Deliveries continue to improve and the co-operation between shippers and railroads is having beneficial results in improved service. As a result of the activities in deliveries, accumulated stocks of pig-iron in the Southern territory are being reduced. In addition to iron from furnace yards there has been some iron shipped from warrant yards. These dealings, it is reported, have not been at concessions, and the statement is made that less than 5000 tons warrant iron is yet to be located. Not more than a month's output of iron altogether is to be found on yards in this district, not enough to disturb the market in the least.

That all attention is being given to the production is evidenced by statements made by high officials of iron-producing companies as to furnace conditions. The Alabama Company has placed an order for a complete relining outfit, fire brick and other material being bought. The material cannot be delivered by the refractories company accepting the contract until next January. It may be necessary before that time to do some repair work about furnaces, and then would come the rub.

J. W. McQueen, vice-president of the Sloss-Sheffield Steel & Iron Co., in charge of operations in the absence of President Waddill Catchings, is in New York, being called there for a conference with the executive committee. Announcement made immediately after the election of Mr. Catchings to the presidency of the Sloss-Sheffield Steel & Iron Co. that every effort would

be given to increase the productions of the company is being put into execution. It is not improbable that Mr. McQueen will be called upon for suggestions looking to even more development than that started on. By betterments at ore mines, rehabilitation of old city coke ovens and other means, more or less minor as compared to development that was anticipated on the part of the company, raw material supplies of this company are being increased right along.

Foundries and machine shops, cast-iron pipe plants, sanitary or soil-pipe plants in the South are all receiving good contracts and are working on full time. The Birmingham Foundry & Machine Co. has a contract for 3000 shells, 14-inch cast-iron shells, from the Government, to be used in target practice. It is announced that this company will provide a big addition to its works for the manufacture of marine engines. In this connection announcement is about to be made of the location of a large plant in the Birmingham district, under supervision of the Government, for the production of steel shapes for shipbuilding, the forgings and rolling to be done in Birmingham and the assembling in Charleston. Steel will be brought here from Pittsburgh to augment that to be purchased in the Birmingham district. Structural steel for use in the navy-yard at New Orleans is being produced by the R. I. Ingalls Iron Works here, and delivery is being given precedence over everything else.

Scrap iron and steel dealers are finding no trouble in disposing of large quantities of scrap and defy published quotations. Inquiry elicits the information that dealers ask stronger prices than those published, and being independent are getting figures above those given out. Consumption of scrap is on a lively basis, and demand for certain scrap, stove plate, for instance, besides other things, is so active that dealers cannot supply all wanted.

Quotations on pig-iron and old material in the Birmingham district are as follows:

PIG-IRON.

No. 1 foundry and soft.....	\$40.00 to \$42.00
No. 2 foundry and soft.....	38.00 to 40.00
No. 3 foundry.....	35.00 to 36.00
No. 4 foundry.....	33.00 to 34.00
Gray forge.....	31.00 to 32.00
Basic.....	38.00 to 40.00
Charcoal.....	45.00 to 50.00

OLD MATERIALS.

Old steel axes.....	\$35.00 to \$36.00
Old steel rails.....	22.50 to 23.50
No. 1 wrought.....	25.00 to 26.00
Heavy melting steel.....	20.00 to 21.00
No. 1 machinery.....	22.50 to 23.50
Car wheels.....	22.50 to 23.50
Tram car wheels.....	22.00 to 23.00
Stove plate.....	13.50 to 14.50
Shop turnings.....	8.50 to 9.50

New Texas Sulphur Development.

The development of Texas sulphur property is planned by the United States Sulphur Co. of Dallas, which has been incorporated by R. L. Spann, A. Thad Darr, E. D. Matson, M. W. Florer and H. A. Dodge. This corporation is capitalized at \$600,000, with Mr. Florer as president, and he wires the MANUFACTURERS RECORD:

"Company owns 80 acres, much of which is already developed and proven to have immense deposits of high-grade sulphur ore; also have 200 acres under lease from the State of Texas. It is the purpose of this company to construct a refinery with a daily capacity of 100 tons of commercial sulphur, contract for which has already been let. Shipping point near the property, and sulphur is now being shipped from adjoining property."

A branch hosiery knitting mill to employ 400 operatives will be built at Fairmont, W. Va., by the Interwoven Hosiery Co. of Martinsburg, W. Va., and New Brunswick, N. J.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

Southern Railway Gets Coal Lands.

Birmingham, Ala., June 5—[Special.]—The Southern Railway is to mine coal in the Birmingham district, the Railway Fuel Co., capital stock \$10,000, having been organized and articles of incorporation filed in the probate court here. The officers of the company are H. B. Spencer, president; W. E. Leake, vice-president; H. F. Pierce, secretary; H. C. Ansley, treasurer; A. H. Plant, comptroller. With the exception of Mr. Leake, who is a coal and iron man of the Birmingham district, all the officers live in Washington and are connected with the Southern Railway.

The company has acquired 2000 to 3000 acres of coal lands in Walker county, near Parrish, Ala., on the Southern Railway, and has started work on a slope opening. By November it is expected a mine will be in operation with a daily output of upwards of 2000 tons. The company will not sell coal on the open market.

Improving a Louisiana Railroad.

Hammond, La., June 4—[Special.]—The Baton Rouge, Hammond and Eastern Railroad, a part of the Illinois Central system, in operation between Baton Rouge and Covington, La., is being almost entirely reconstructed. All of the old bridges are being torn out and rebuilt with creosoted piling and concrete, the roadbed is being widened, strengthened and ballasted with rock and gravel and new and heavier rails are being laid. These improvements were made necessary by the increased traffic.

It is reported in railroad circles that the company contemplates extending the line from Covington, La., to Gulfport, Miss., a distance of about 60 miles, as soon as the necessary material can be obtained from the steel manufacturers. It is known that two surveys have been made between Covington and Gulfport. If the Gulfport extension is made it will give the Illinois Central another deep water outlet.

Good Year of a Southern Road.

The report of the Atlanta, Birmingham & Atlantic Railway Co. for the year ended December 31, 1916, shows an improved condition of affairs. President E. T. Lamb says that the freight and passenger revenues increased over the previous year, although shortage of fertilizer materials, due to conditions growing out of the European war, reduced the production of cotton, but the general business of the road benefited by the high prices obtained by the farmers for the cotton and cottonseed and in the closing months of the year its business was the heaviest ever handled by the company. Coal, lumber, iron and steel articles, cotton factory products, livestock, packing-house products, grain, flour, feedstuffs, building materials, automobiles and miscellaneous merchandise all showed substantial increases over the previous year, while cotton, cottonseed, fertilizer and liquors showed decreases. Local business conditions are encouraging.

Continuing President Lamb says: "The Yaryan Rosin & Turpentine Co. rebuilt the plant which was burned at Brunswick, and resumed operations * * * producing turpentine, rosin and other naval stores products from pine waste wood. This is one of the most important industries on our line, as it not only contributes directly to our freight and passenger traffic, but clears out stumps from farming lands along our line. * * *

"A packing plant with a capacity of 1000 hogs a day is in successful operation at Moultrie, Ga., and a somewhat smaller plant is in operation at Waycross, Ga. A plant of similar capacity to the one at Moultrie is now under construction at Tifton, Ga. The raising of hogs and cattle is expected to become an important industry in our territory.

"In spite of the seriousness of the boll-weevil, which

will damage us in spots, our whole agricultural territory indicates a vigorous and healthy growth, and in practically all the cities and towns of any size we reach there is activity and growth in manufacturing."

The income account for the year shows: Operating revenues \$3,339,839.86 increase as compared with 1915, \$487,797.93; operating expenses \$2,555,180.90, increase \$150,134.65; net operating revenue \$784,658.87, increase \$337,663.28; operating income after taxes and uncollectible railway revenue \$622,143.37, increase \$334,221.37.

Texas & Pacific Reports Prosperity.

J. L. Lancaster and Pearl Wight, receivers of the Texas & Pacific Railway, say in the annual report of the road: "During the year there has been a steady growth in the number of manufacturing establishments in the territory served, and many additions have been made to existing plants. There was a total of 56 new industries and manufacturing plants completed during the year. These, together with the 31 new mercantile establishments located at various points, it is estimated will yield new business aggregating 10,000 carloads per year. The agricultural development along the line has been satisfactory, there having been 2700 new families located adjacent to the line, 261 new stores built, 1500 new town houses constructed, 1280 new farm homes built, 1134 immigration outfits received and 458 carloads of agricultural machinery distributed to various points.

"There is very active development in both the oil and gas fields along the line in Louisiana and Texas. Considerable activity is also apparent in ore deposits in East Texas, and sulphur in West Texas. It is anticipated that the production of sugar-cane in Louisiana during the coming year will greatly exceed that of 1916, during which year the company handled approximately 13,000 cars, with an average loading of 30 tons per car."

Operating revenues for the year were \$20,858,657.06, increase as compared with the preceding year \$2,362,411.63, or 12.77 per cent., this total greatly exceeding any previous year; operating expenses \$14,373,028.53, increase \$456,747.10, or 3.28 per cent.; net operating revenue \$6,485,628.53, increase \$1,905,664.53; total operating income after taxes and uncollectible railway revenues \$5,530,097.66, increase \$1,892,364.28; gross income \$6,133,634.67, increase \$2,235,390.66; net income \$3,487,379.04, increase \$2,103,149.69.

Increased Cost of Railroad Operation.

The position of the railroads in the United States is closely indicated by the report of the Bureau of Railway Economics for March, which shows an increase in the operating ratio from 67 to 72.2 per cent. as compared with March of last year, this being due mainly to the higher wages paid under the Adamson law. Notwithstanding that total operating revenues were \$317,087,310, an increase of \$26,861,222, or 9 per cent., as compared with March, 1916, the net operating income, after expenses, taxes and uncollectible railway revenues, was \$73,574,537, a decrease of \$9,571,688, or 11.8 per cent.

The total operating expenses were 17.4 per cent. more than in March last year, and taxes 14.9 per cent. more.

Baltimore & Ohio Earnings Increasing.

The operating revenues of the Baltimore & Ohio Railroad during April, according to its monthly statement just issued, amounted to \$10,293,544, or \$1,251,474 more than they were in the same month of last year. Total operating expenses were \$7,825,857; increase, \$697,720; net operating revenue, \$2,467,687; increase, \$553,754.

There was an increase mainly owing to the higher wages paid trainmen under the Adamson Act—of \$967,198 in the transportation expenses, but this was offset by a decrease of \$384,462 in the cost of maintenance of way and structures, and the increases in other items of operating expenses were small.

Operating revenue for the first four months of the year totaled \$38,424,318; increase as compared with the same period of last year, \$3,343,073; total operating

expenses, \$30,017,515; increase, \$3,023,363; net operating revenue, \$8,406,803; increase, \$319,710.

The increase in transportation expenses for the period was \$3,436,782 but other items increased little and the cost of maintenance of way and structures decreased over \$500,000 and maintenance of equipment more than \$200,000.

It is stated that the operating revenues for April was the largest for that month in the history of the company; they never before exceeded the \$10,000,000 mark.

Tampa, Atlantic & Gulf Railway.

The plans of the Tampa, Atlantic & Gulf Railway Co., call for the construction of a line about 285 miles long from Tampa to the eastern coast of Florida and also the Gulf coast of that State. Edward Walker, Secretary and treasurer of the company, Tampa, Fla., says that seven draw bridges with spans for from 50 to 75 feet will be required; also about six miles of concrete protected trestle located in three bridges. It is expected to open bids for construction about July 1, this for sub-contracts, the general contract having been awarded. J. B. Walker is president; F. M. Williams, vice-president; and C. G. Young, chief engineer of the company, the latter's address being 14 Wall street, New York.

Official Appointments.

L. C. Fritch, who has been appointed general manager of the Seaboard Air Line, to succeed C. S. Lake, who recently resigned, will assume his new duties about June 15. He is at present general manager of the Canadian Northern Railway. He is a native of Illinois.

V. E. Whitaker has been appointed general executive agent of the Atlanta, Birmingham & Atlantic Railway at Birmingham to succeed I. W. Rouzer, who has become manager of the traffic department of the Sloss-Sheffield Steel & Iron Co.

Eliminating Flood Dangers.

Baton Rouge, La., June 4—[Special].—The Yazoo & Mississippi Valley Railroad, a branch of the Illinois Central system, is spending about \$2,000,000 in improving the line between Baton Rouge and Memphis, Tenn. In some sections the road is being entirely reconstructed and rebuilt. Curves are being straightened out, the roadbed placed above the highest flood level ever known and concrete bridges and culverts constructed. When the work is finished the road will be several miles shorter and it will be as near flood-proof as engineers can make it.

Atlantic Coast Line Statement.

The Atlantic Coast Line reports for April total operating revenues \$3,617,529, increase as compared with the same month of last year \$352,385; operating expenses and taxes \$2,720,655, increase \$612,088; operating income \$896,874, decrease \$259,702.

For the first four months of the year to April 30: Total operating revenues \$15,167,620, increase as compared with the same period of last year \$1,903,010; operating expenses and taxes \$10,113,038, increase \$1,483,528; operating income \$5,054,582, increase \$419,482.

New Equipment.

The Little Rock Railway & Electric Co., Little Rock, Ark., has ordered 6 pay-as-you-enter street cars from the J. G. Brill Company.

Proposes an Extension.

New Iberia, La., June 4—[Special].—Announcement is made here that the new Iberia & Northern Railroad, a line now in operation from Port Barre to Charenton, La., will be immediately extended from Charenton to Patterson, La., and that later the road will be

built from Patterson to Morgan City, where it will secure deep water facilities on the Atachafalaya river. The New Iberia & Northern was constructed about eight years ago and has been profitable. The line traverses the rich and fertile Teche Valley in Louisiana.

Missouri Pacific Directors.

The directors of the new Missouri Pacific Railroad Co. have been elected as follows: President, B. F. Bush; Wm. H. Lee, John T. Milliken and Edward C. Simmons, all of St. Louis; Nicholas F. Brady, Harry Bronner, Alexander J. Hemphill, John H. McClement, Edgar L. Marston, Finley J. Shepard (who is vice-president); Cornelius Vanderbilt, Albert H. Wiggin and Wm. H. Williams, all of New York; Carl R. Gray and R. Lancaster Williams of Baltimore, Chas. E. Igersoll of Philadelphia, and C. Minot Weld of Boston.

To Hasten Freight Claim Adjustments.

The Southern Railway announces that it has established a central freight claim office at Chattanooga, Tenn., under the charge of H. T. White, freight claim agent, for the purpose of facilitating the adjustment of freight claims and to minimize the causes which create losses and damages to freight. The freight claim offices at Washington, D. C., and Cincinnati, O., will be continued, and branch freight claim offices are also established at Charlotte, N. C.; Atlanta, Ga.; New Orleans, La., and Louisville, Ky.

\$500,000 of Receivers' Certificates.

The receivers of the Gulf, Florida & Alabama Railway have been authorized to issue \$500,000 of certificates, the proceeds of which will be used to purchase equipment and make repairs and improvements to the property as outlined at the time the receivership was created, several weeks ago. The receivers are F. E. Dewey and Philip D. Beall of Pensacola, Fla.

New Alabama Graphite Enterprise.

Graphite deposits in Alabama will be developed by the Gulf States Graphite Co. of Birmingham, which has been chartered with \$200,000 capital. The officers are: D. S. Martin, president; George R. Simcox, vice-president; John M. Hughes, secretary-treasurer.

Coal Company With \$500,000 Capital.

Virginia coal properties will be developed by the Upper Banner Coal Corporation of Lynchburg, which has been chartered with \$500,000 capital. Harrison T. Nicholas, president, wires the MANUFACTURERS RECORD that his company's development plans have not been matured.

Pennsylvania Iron to Texas by Barge.

A dispatch from Orange, Texas, to the Houston Post reports the arrival at the latter port of barges loaded with 550 tons of iron, said to have been shipped direct by Pennsylvania concerns. According to this statement, this iron is to be used by the shipbuilding industries of the Orange district.

The South Helping to Feed the Country.

A St. Augustine dispatch to the Jacksonville Times-Union reports that the Hastings potato-growing district of St. Johns county is preparing to increase its potato acreage by about 50 per cent., carrying the total up to 16,000 or 18,000 acres. Over 3000 carloads of potatoes were shipped from that section this season, and the land which a month ago was producing potatoes is now growing corn, and a fine stand has already been secured. These potato-growing people, having made young fortunes on their abundant crop of potatoes, now turn the same land into corn, and will follow that with another potato crop, once more illustrating the opportunities of farming in the South.

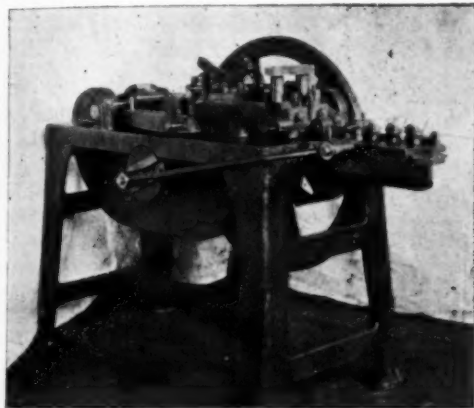
MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Improved Nail-Making Machinery.

In developing the manufacture of wire nails the trend of effort has been in the direction of building smaller, lighter and at the same time more efficient nail-making machinery, to meet the demands of nail-makers, and among the prominent leaders in the production of such machines is the firm of Sleeper & Hartley, Inc., Worcester, Mass., which several years ago developed a new type of wire-nail machine embodying a number of features greatly desired by manufacturers of nails. These have been built to order for some time, but the firm is now equipping a separate plant which will be devoted wholly to manufacturing nail machinery.

While these machines are noticeable because of their reduced size and weight, as well as because they require less floor space, they also possess very important features which impress themselves upon observers of their operations. This type of machine has a massive frame, strongly and rigidly reinforced, mounted on double legs. All working members are on top of this frame and are so mounted that they can be removed and the machine stripped down in a few minutes. Instead of by rotating cams, the motions of the machine are accomplished by means of toggle joints actuated from a single crankshaft. All moving members operate in mechanical balance, smoothly and easily, and practically noiseless. Thus wear and tear are greatly reduced, power is economized



NO. 3 NAIL MACHINE.

and very high speeds are attained, with correspondingly high output.

In this design another point of superiority is the separation of the pointing and the heading operations. This greatly reduces the heating effects upon the dies, and working stresses are more widely distributed. This is effected by an intermittently operated carrier wheel (interposed between the pointing and the heading positions, and provided with a series of holding jaws), which takes the pointed blank from the pointing dies and carries it through an angle of 180 degrees into the heading position, where it is gripped by the heading dies and headed. Then the finished nail is still held by the carrier wheel jaws until it reaches a point about 90 degrees further on, when it is automatically released and dropped. This carrier wheel normally holds from three to four pointed blanks, and is operated through a geneva movement from the main crankshaft.

In operation the wire is taken from the coil and fed through the straightener rolls mounted on the feed slide. This feed slide is operated through an adjustable connection from a crank, and in the larger machines is provided with a quick return motion. A single revolution of the machine feeds a blank, cuts it off (at the same time pointing the incoming wire end), heads a previously cut-off blank on the opposite side of the carrier wheel and moves the carrier wheel through a partial revolution, thereby releasing a previously headed nail.

A very notable feature is the accessibility of the pointing and heading dies, any one of which may be lifted off in a few seconds for examination. All of the important bearings are provided with adjustable compensating wedges to take up wear. The adjustments for

the anvil and dies are effected similarly, and these adjustments, when once effected, are rigidly maintained. Summarized, the advantages of these machines as stated by the manufacturers are very high output, smoothness and quietness in operation, compactness, distributed stresses, little wear and tear, large capacity for small floor space required, and accessibility of dies and working members.

As to capacity, the No. 2 machine, which occupies a floor space of 19x42 inches and weighs but 750 pounds, will make 2½-inch nails from No. 11½ wire at the rate of 400 per minute. The No. 3 size affords even greater contrast in this particular. This machine occupies a floor space of 36x63 inches, weighs 2000 pounds, and will make four-inch nails from No. 6 wire at a speed of 350 per minute. The machines are offered in five sizes, handling wire from No. 17 to ¾ inch diameter and producing nails from ¾ inch to 10 inches long.

A Durable Pump for Severe Service.

The demand for a strong and durable device to do pumping service under severe conditions was endeavored to be met by the builders of the Centrifugal Sand and Dredge Pump, which is here described, and their success with it has evidenced the value of this machine, made by the Mutual Foundry & Machine Co. of Atlanta, Ga.

The first pump of this class was designed, patented and manufactured in the four-inch size for use at marble mills in Georgia. It was equipped with renewable liners made of an extremely hard metal, called "vitreous metal." In pumping sand and water to the gang saws considerable trouble had been experienced in the rapid wearing out of the pump casings, necessitating frequent replacements, but the metal liners of the Trenary patented pump have given an average service of seven months, running continuously 24 hours daily. The impeller is also made of this hard metal, and will, it is stated, outlast the liners in the ratio of about two to one.

The liners and runner ring are placed so that no bolts are necessary to hold them in position, and the absence of bolts or set screws remove the need for holes in the outer casing, thereby eliminating the possibility of air leaks, which would destroy the efficiency of the pump.

Because the wearing parts can be easily renewed, the rest of the pump was built about 25 per cent. heavier than pumps usually are constructed, so that purchasers would have a machine built for long service and durability under the most severe conditions. Bearings were made of the ring oiling type, in preference to plain babbitted boxes, and both bearings and shaft were made oversize.

After tests, followed by months of operation, a further improvement was made by introducing an end thrust, self-aligning, ball-bearing, which accomplished a material reduction in the horse-power necessary to operate the pump. It is estimated that this saving amounts to from 20 to 25 per cent.

The development of a six-inch pump for handling sand or gravel was next undertaken, following the general details of the four-inch pump. The six-inch pump, it is stated, will handle any solids up to 4½ inches diameter through the impeller, which, like the liners, is made of the same hard "vitreous metal." This larger pump weighs nearly 3000 pounds, while ordinarily an unlined six-inch pump, it is said, weighs only 2000 pounds, and a heavy-lined dredge pump about 2400 pounds. The general dimensions of this pump are about 25 per cent. larger than similar pumps. These points, say the builders, all contribute toward a piece of apparatus which will be foolproof, will stand exceptionally hard usage, and will give service for many years.

In the six-inch pump an additional feature was incorporated, namely, a water seal, which surrounds the stuffing-box gland. Its purpose is to give an accurate and immediate indication of any air leak which might occur at this point. In many cases an operator will unnecessarily tighten up the gland to stop an air leak, when the trouble is at some other point, and cutting out of the shaft results.

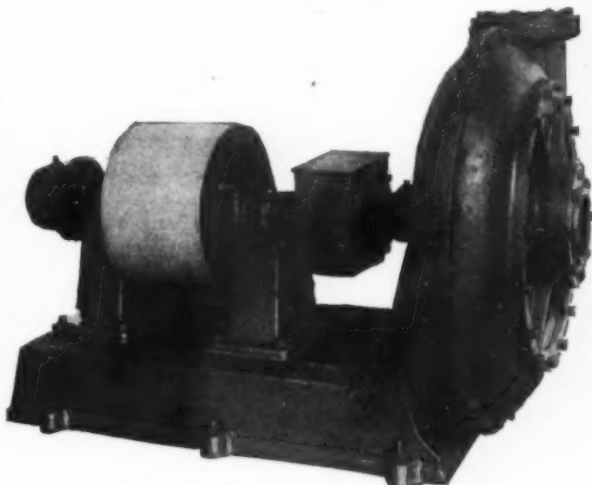
The manufacturers of this new pump express the

opinion that there is a very large field in the South for apparatus of this type. Dredging operations are conducted on a large scale, also sand and gravel pumping in practically all localities, phosphate pebble mining in Florida, irrigation work in many places, etc., and especially because the ultimate cost of a Trenary pump, they say, would be less than usual, because of the possibility to satisfactorily and economically renew the parts most subject to wear and the company is able to give prompt service. It proposes to manufacture and keep in stock sizes of 4, 6, 8 and 10 inches.

Friedel Molding for Wall Board.

There are times when wall board, lacking room for expansion, sags and produces a warped appearance of walls or ceilings. At other times it may contract so as to tear itself loose and show ragged edges below the battens. To avoid conditions like these and also to add decorative features to the use of wall board the W. R. Friedel Company of Memphis, Tenn., has patented and is manufacturing a molding to hold wall board securely in position. The molding is made with a flange into which the wall board fits, and a smaller piece of molding is inserted in a groove provided for it, this device holding the board without nails and adding to the decorative appearance of the molding itself.

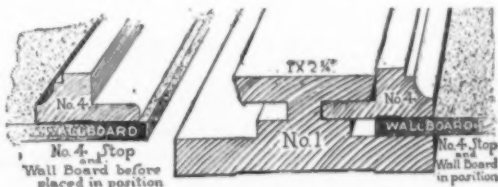
This molding can be installed irrespective of the studding, so that studding which is irregularly spaced or joists that are warped do not constitute obstacles to its use. It is made in six or seven designs, and in stock lengths of from 10 to 16 feet in various kinds of woods, so as to give any effect desired in a room or to match the trim. The company's very interesting catalogue describes this product in detail and also shows how it



TRENARY CENTRIFUGAL PUMP.

may be expeditiously installed. It is profusely illustrated.

It is further stated that the molding may be used for the finest of work, and that it can be put on studding any distance apart from three inches to three feet. It also does away with headers or nailing pieces, which are troublesome to put in. Years of experience in the



APPLICATION OF WALL BOARD MOLDING.

use of wall board, accompanied by steady development, have brought the product to a high degree of perfection. Its finished, paneled appearance, when secured by this molding makes the advantages of wall board, it is stated, even more apparent than heretofore.

The accompanying illustration shows how the molding is applied to the wall board. This No. 1 molding is used between panels, and the strip No. 4 is the smaller piece which holds the wall board in place. Other forms are made for the top of base boards, door and window casings, etc., and to meet special conditions, each form having its appropriate stop.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

Bonds Voted.

Liberty, Mo.—Clay county will issue \$1,250,000 road bonds.

Pembroke, N. C.—City will issue \$2000 bonds to improve streets.

Salisbury, N. C.—City issued \$75,000 bonds for paving streets.

Bonds to Be Voted.

Pulaski, Va.—Pulaski county votes August 23 on \$300,000 bonds to construct roads.

Contracts Awarded.

Baltimore, Md.—Wm. E. Harmon & Co. awarded contract for 44,400 feet cement sidewalks at Fairlawn.

Baltimore, Md.—City awarded \$78,857.50 contracts for grading, curbing and paving several streets.

Beaufort, S. C.—City awarded \$21,390 contract to construct 13,000 square yards paving.

Columbia, Tenn.—City awarded contract to construct 50,000 square yards asphaltic concrete; \$75,000 available.

Eutaw, Ala.—Greene county awarded contract for 2½ miles of grading and draining; \$6000 available.

Lexington, Ky.—City awarded \$12,260.45 paving contract.

Welch, W. Va.—McDowell county awarded contract for seven miles of grading.

Contracts to Be Awarded.

Caruthersville, Mo.—City will pave 33 streets, costing total of \$77,101.50.

Clinton, N. C.—City asks bids until June 19 to construct 11,000 square yards sheet asphalt or other paving on concrete base, or concrete pavement with curbing, gutters, etc.

Giddings, Tex.—Lee county will construct graveled roads; \$150,000 available.

Greenville, S. C.—Greenville county will expend \$30,000 to improve road.

Mountain City, Tenn.—Johnson county will construct 36 miles road.

Nashville, Tenn.—Davidson county appropriated \$6000 for road construction.

Pine Bluff, Ark.—Jefferson county will construct 40 miles of bituminous macadam roads.

Williamson, W. Va.—Mingo county will expend \$200,000 this year on road construction.

Successful Campaign by Texas County for Road Building During War Period.

Wichita Falls, Tex., June 2—[Special.]—Wichita county has responded to its duty to build roads in a most substantial way, voting for \$750,000 of 5 per cent. 40 year gold road bonds on May 24 with a majority of 4 to 1 in the county. And this victory was brought out of seeming defeat, the condition when the bond was first agitated, by a thoroughly systematized campaign of education on the good roads question. In view of the fact that the Meridian and the Colorado to the Gulf highways traverse a good part of Wichita county this election is of more interest than merely sectional or state.

The chief argument of those against the \$750,000 issue, the "war and the hard times sure to come", was turned into one of the weapons of the good roads campaign committee which ultimately brought victory by answering in this manner:

Suppose there is a money stringency, that money becomes "tight" in Wichita county, that the war-time prices prevail in food stuffs, that there will be a letup

of local industries with an accompanying discharge of men. For the sake of argument suppose all these conditions do exist. If \$750,000 of outside money at 5 per cent. can be brought into the county to be expended here for labor and materials, and at the same time bring permanent benefits to the roads, will not this be infinitely better than having only local money in circulation and the day laborers or men with teams idle?

There have been good rains, though they came late, and a harvest of record proportions is indicated. By getting to work immediately the condition of some of the roads can be bettered even by harvest time and this will facilitate the moving of this year's crops and those of all subsequent years. The men who are not at work can find labor on the roads, for Wichita county labor will be used exclusively, providing sufficient numbers are available.

There were other statements prepared answering whatever opposition arguments were advanced with facts and figures and an extensive campaign was waged by the Wichita County Motor Club and the Wichita Falls Chamber of Commerce with the result of the overwhelming victory.

For other counties or organizations who are contemplating a similar voting of bonds some reference to the methods employed by those in charge of the Wichita county campaign may be of interest.

When the Wichita county road law was passed by the legislature B. F. Johnson, the Chamber of Commerce secretary, was made manager of the good roads campaign and organized his plan of procedure with auxiliaries in every community of the county.

Just at this time the strongest argument was developed by those opposing the bonds, by the declaration of war. This, however, was met as recounted before in this article and proved one of the strongest points in the entire propaganda for good roads, winning many converts among the farmers and small tax payer who might be affected by the working conditions.

The campaign, managed by Mr. Johnson, was worked through a central committee, composed of the presidents of the commercial clubs of each town in the county, the president of the Motor Club, and the president of the Rotary Club of Wichita Falls, with the campaign manager as chairman. There were sub-committees in every locality to do missionary work.

A fund of \$1000 for the campaign was secured by the sale of lapel buttons, bearing the inscription, "Be a Good Roadster. Vote for Good Roads May 24". The buttons sold at \$1 each.

The next step was to get the newspapers of the county lined up in favor of the proposition and every paper, daily and weekly in the county practically turned over its columns to the publicity committee. From the time the election was called, early in April, until May 24 not a day went by without a presentation of the question in the Wichita county press.

Another working method was by reaching every voter in the county personally. A card index of every qualified voter in the county was prepared at the beginning of the campaign and some member of the central committee or of the "missionary" committees visited each man and sounded him on the good roads proposition. If he approved, well and good. If not the "missionary" found his reasons for opposing the measure and he soon received answers to his arguments, both written and oral, for the committee did not depend alone on its campaign literature, but sent those who would have the most influence in each particular case to make a convert of the man opposed to the bond issue.

Information and publicity as well was obtained from post cards, with return cards, self addressed and stamped, attached on which each voter was asked to state his stand and why. These replies were published in the papers and proved one of the most efficacious methods of the campaign, as like the personal visits, it showed the "why," if an endorsement, the reply was used to further the issue. If opposed, his reasons for so being were answered.

After replies to the inquiries sent out by the campaign committee began coming in a good roads bulletin was published, containing a number of the endorsements, statements from the county officials and prominent business and professional men of the county, the map of the proposed 120 miles of permanent roads, a financial statement of the exact cost of the bonds,

and articles viewing the road issue from the viewpoint of all occupations and walks of life.

It was found early in the campaign that the opposition of nine persons out of ten was based solely on unfamiliarity with the proposed plan of issuing the bonds and rate of taxation, as well as the roads to be made permanent. This opposition was removed when it was explained that the bonds would be spent on making permanent 98 per cent. of the roads now maintained in conditions varying from bad to worse. That these bonds would cost in interest and principal payment for the first year \$56,500 for the succeeding years amounts gradually decreasing, whereas in 1916 \$68,000 was spent on the present road system with nothing permanent to show for the expenditure. It was shown from figures compiled in districts where permanent roads are kept up, that upkeep on the road system outlined would amount to \$8,000 yearly, still leaving a margin to be spent on caring for other roads in the county, on what was spent on dirt roads last year. Calculations by the auditor of the county accounts were cited to show that an increase of only 2 cents of the \$100 valuation will be necessary to cover the bond issue and provide additional funds to maintain the side roads is the same state as under the present system of grading.

All of these campaign methods had the desired effect as evidenced by the vote of 1648 for the bonds, and 420 against. And Wichita county has not only done itself a service in voting these bonds but has given encouragement to adjoining counties, who have been waiting results here before calling their elections.

Big Baltimore Bridge Ready for Traffic.

The bridges and roadway, constructed under the direction of the State Roads Commission of Maryland, to replace the present Light-street bridge, connecting Baltimore city and Anne Arundel county, will be formally opened to traffic next week, and before another month the entire improvement will have been completed. Just now only the eastern driveway is open to traffic, and it is estimated that a month will be required to complete the additional work. The improvements will cost upwards of \$1,500,000, and it is the largest and handsomest structure of its kind in this section. Under an agreement with the War Department at Washington a permit was granted to construct a new bridge over the Patapsco River, provided that upon its completion the old wooden bridge be removed within a year from the completion of the new structure. It is planned by the city of Baltimore to use the piles from the old bridge to construct a bulkhead along the waterfront near Fort McHenry and reclaim a large area of lowland for factory sites. When the bulkhead is completed the riverbed will be dredged so as to permit big boats to tie up at it, and the dirt will be pumped inland to reclaim the lowland.

The bridge is of reinforced concrete construction, and consists of an arcade, on the Baltimore end, 600 feet long, and 16 spans, with a draw providing an opening of 150 feet. The draw is of the bascule type, and has two leaves, each 75 feet long. It is about 40 feet above mean low tide, allowing small boats to pass without raising the draw. On each side of the draw are two small houses of concrete, one on each side for an engine-room, and one for a comfort station and the other a house for the drawkeeper. The draw was installed by the Strobel Steel Construction Co., Chicago, Ill., and contains about 1,000,000 pounds of structural steel. It has been paved with wooden blocks. The machinery for operating the draw consists of both electric motors and gasoline engines, the latter being for emergency purposes.

The grading was done by the Luck Construction Co. of Roanoke, Va., and the bridges were built by the McLean Contracting Co. of Baltimore. The bridge provides for two roadways, two street-car tracks and two pathways, and is 60 feet wide, more than twice the width of the old bridge. The car tracks were completed several months ago, and since that time the Curtis Bay line of the United Railways & Electric Co. has been in operation. The one roadway opened this week will permit more traffic than the entire old bridge.

P. Flannigan & Sons of Baltimore have the contract for paving, consisting of sheet asphalt placed on a concrete base, and is approximately 1.5 miles in length. The curbing, 11,200 feet in length, has been completed.

also the concrete base; half of the total of 28,050 square yards of asphalt has been laid; 2786 square yards of brick gutters have been completed, and 3644 square yards of wood blocks have been laid. Just now the temporary wooden poles erected to carry the trolley wires are being removed and replaced by iron poles, which will also support lights for the bridge. There will be no wires above ground except the trolley wires, all others for electric, telephone and telegraph having been placed in subways provided for them.

A new channel had to be dredged from the Light-street bridge to the Western Maryland Railroad bridge because the old channel did not conform to the new draw. The Maryland Dredging & Contracting Co. did the work, which necessitated the removal of 174,212 cubic yards of material. The channel has been dredged to a depth of 30 feet. It is planned to cut away a huge portion of land at the Baltimore end of the old Light-street bridge and to dredge an entirely new channel from the present Baltimore channel to the new Hanover-street draw to eliminate the turn in the present channel caused by the location of the old draw.

Dallas County (Tex.) to Spend \$500,000 on New Road Work.

Dallas, Texas, June 2—[Special]—The Commissioner's Court of Dallas county has adopted the recommendations of county engineer J. F. Witt for the expenditure of \$500,000 for the construction of concrete roads, bridges and other highway improvements. The specifications for the proposed work are being prepared and advertisements for bids will be made the latter part of July. The work as outlined by Mr. Witt follows:

Dallas-Fort Worth Road—Aside from making all bridges permanent, a provision is made for Portland cement concrete pavement from the end of the new embankment of the Commerce street viaduct to the foot of the Obenchain Hill in West Dallas, a distance of one and one-half miles. The same type of pavement is provided also for that section of the road through Mountain Creek bottom, a distance of 1.45 miles. Total cost \$73,424.

Dallas-Coppell Road—Permanent bridges to replace all timber bridges, Portland cement concrete pavement, 18 feet in width from intersection with the West Dallas pike to the foot of Hasty Hill, a distance of two miles. From the point where the Eagle Ford road intersects this road across the bottom lands of the West Fork of the Trinity river to the foot of Britain Hill, provision is made for raising the road above high water, with an earth embankment, gravel surfacing and 1000 lineal feet concrete bridging covering a length of 1.8 miles. Total cost \$106,653.

Dallas-Denton Road—Replace all timber bridging either with steel or concrete. Total cost \$16,500.

Preston Road—Minor repairs to bridges, \$2000.

Richardson Road—Replacing timber culverts with concrete, \$4900.

Garland Road—Replacing all timber bridges with either steel or concrete. Portland cement concrete pavement 18 feet in width through White Rock Creek bottom, a distance of 2000 feet. Portland cement concrete pavement 16 feet in width through Rowlett Creek bottom, and raised earth embankment with gravel surfacing through Muddy Creek bottom. Total cost \$58,258.

East Pike—Replacing timber bridges and culverts with either steel or concrete, \$26,700.

Dallas-Seagoville Road—Replacing all timber bridges and culverts with either steel or concrete. In the section of the road which passes through White Rock Creek bottom provision is made to raise the road above mean high water with an earth embankment and 100 lineal feet of steel and concrete bridging, using gravel as surfacing material. Total cost \$84,900.

Miller's Ferry Road—Replacing all timber bridges with either steel or concrete, including 700 lineal feet of concrete bridging through Five Mile Creek bottom. Provision is made also for raising the earth embankment through this bottom to an elevation above high water and surfacing the same with gravel. Total cost \$44,500.

Lancaster Road—Replacing all timber bridges and culverts with either steel or concrete. It is contemplated also that where this road crosses Ten Mile Creek south of Lancaster the alignment shall be

changed to give an underhead crossing with the M. K. & T. Railway. Total cost \$16,500.

Beckley Road—Replace all timber bridges and culverts with either steel or concrete, \$31,200.

Cedar Hill Road—Replace all timber bridges and culverts with either steel or concrete, \$25,400.

The total of these proposed expenditures is \$492,935.

Mingo County's \$1,000,000 Improvements.

The Mingo county commissioners, Williamson, W. Va., plan \$200,000 worth of road construction this year from the \$1,000,000 bond issue announced in May. Blake Taylor is the county road engineer, and will arrange for first grading and draining the roads, after which the main roads will be hard-surfaced.

Road Bonds for \$1,250,000.

The Clay county commissioners, Liberty, Mo., have a decree validating the Clay county \$1,250,000 road bonds previously voted. It is the intention of the commissioners to arrange for issuing these securities and to provide for the road improvements contemplated.

TEXTILES

MARSHALL FIELD & CO.'S PLANS.

Big Development for Textile Mills and Industrial City in Virginia.

Details have been determined for the big textile mills and industrial city development which Marshall Field & Co. of Chicago are planning near Martinsville, Va., probably more than \$1,000,000 to be invested. Last month Marshall Field & Co. advised the MANUFACTURERS RECORD that engineers were laying out the new townsite, that contracts had been awarded for the textile machinery and that plans for the mills were being drawn. George W. Fraker, president of the Carolina Cotton & Woolen Mills Co., Spray, N. C., manager of Marshall Field & Co.'s North Carolina textile interests, sends the MANUFACTURERS RECORD an outline of present plans as follows:

"The land has been obtained and a model manufacturing town will soon be a reality. The new town will be called Fieldale, four miles northwest of Martinsville. Several thousand acres of land have been secured amid the hills and slopes which abound in that section. The work has progressed far enough to give an exceptionally pleasing impression of a vast industrial development where nature, men and capital have combined to out-rival all previous efforts. The plan of the town shows the mills situated on a hill, surrounded by higher hills, which together forms a sort of amphitheater, where the slopes on which hundreds of homes are to be built, constitute the audience, whose view of the entire surroundings is like a well-designed theater with its unobstructed stage.

"Fieldale will be located on two railways, the Norfolk & Western and the Danville & Western. A union station will be built at the junction. The Smith River winds its way down by the hills and slopes on which the town will be built. The plans of the entire development include everything that goes to make up a model town or city if you chose to call it, with its boulevards, avenues, streets, parks, churches, Y. M. C. A. and playgrounds; in fact, nothing is omitted that would add to the comfort and health of operatives.

"The management of this vast development is under the direction of George W. Fraker and E. D. Pitcher of Spray. W. R. Lynch of Spray will be the local manager at Fieldale, and David Lindsay of Draper, the superintendent."

Fieldale is about 25 miles from Spray, Draper and Leaksville, N. C., where the Carolina Cotton & Woolen Mills Co., controlled by Marshall Field & Co., has eight large mills for manufacturing textile products. About \$3,000,000 is invested in these three industrial cities for buildings, machinery, public service utilities, mill villages, etc., including 117,000 spindles, with 2455 looms, besides a large warehouse and a bleachery.

KEEP COTTON FROM GERMANY.

National Association of Cotton Manufacturers Again Urges Government to Determine the Ultimate Destination of Exports—Suspicious of Shipments to Genoa.

[Boston Transcript.]

Since the resolutions were passed at the annual meeting of the National Association of Cotton Manufacturers in April asking the Government to exercise rigidly the power to determine the ultimate destination of every bale of cotton exported from this country to Europe, a special committee of the association has been engaged in an exhaustive investigation of the ultimate destination of the shipments of cotton, raw and finished, from this country to neutral nations of Europe since the beginning of the war. As a result of its labors the board of government of the National Association has approved the following resolutions, which had been recommended to it for adoption:

"Resolved, That no cotton goods, cotton or products of cotton be shipped to any neutral or allied nation without positive assurances are given our Government by responsible parties before clearance papers are issued that such goods or raw products are for home consumption, and will not pass into the hands of our enemy.

"Resolved, also, That the secretary be instructed to bring this matter to the attention of the proper officers of the Government, and that he tender to them the services of this association and of its members in the accomplishment of the foregoing objects."

In connection therewith W. Frank Shove, vice-president of the association and chairman of its special committee, says that "could such a step have been taken three years ago it would have materially lessened the length of the war. Statistics on the exports of cotton to Norway, Sweden, Denmark, the Netherlands and Italy for the fiscal years 1914, 1915 and 1916, and such portion of the present year as are available, confirm this belief. The shipments of raw cotton to Denmark rose from 52,049 pounds in 1914 to 19,415,451 pounds in 1915; those to the Netherlands from 17,526,364 in 1914 to 261,868,065 pounds in 1915; and those to Norway advanced from 1,877,670 in 1914 to 29,947,098 pounds in 1915. Sweden received from us in 1914 25,835,256 pounds, and in 1915 391,520,343 pounds of raw cotton, while our exports to Italy jumped from 268,678,515 in 1914 to 563,700,142 pounds in 1915.

"No shipments of raw cotton are now being made to Denmark, but during the eight months ended February of the present year there were shipped to the Netherlands, Norway, Sweden and Italy 349,736,349 pounds of raw cotton. The greater part of these shipments went to the port of Genoa, in Italy. The latter country has never formally declared war against Germany, and there are good grounds for the belief that, through its traders, large amounts of cotton have found their way to the Central Powers. The shipments to Genoa, including Naples, for the thirty-one weeks ended March 2 of the present year were 502,463 bales, compared to a total approximating less than half that amount during the same period in 1914. Nor do these figures include the exports of cotton waste, which is used to a very large extent in the manufacture of explosives.

"While Italy has been fighting with the Allies all the time governed by the foregoing figures, the total shipments for the thirty-one weeks ended March 2 are, to say the least, startling. The situation calls for immediate and practical application of the President's recent declaration that we must all think, speak and act together. The National Association of Cotton Manufacturers has already tendered to the Administration its services in the establishment of an absolute embargo on shipments of cotton to traders of neutral countries who are secretly co-operating with Germany and its allies."

Architect W. H. Sears of Chattanooga has prepared plans and specifications for a mill building to be erected at Greenville, Tenn., by the Loudon (Tenn.) Hosiery Mills. This building will be 200 feet long by 60 feet wide, of brick and timber construction, with composition roofing, wood floor, steam heating and electric lighting equipment.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ark., Fort Smith.—Garrison Avenue Bridge Comms. adopted plans and engaged Hedrick & Hedrick of Kansas City as supervising engineers for bridge to be constructed across Arkansas River at foot of Garrison Ave. into Sequoyah County, Okla.; length 3000 ft.; concrete; 3 traffic ways; sufficient height to permit steamers to pass between spans; estimated cost \$500,000.

Fla., Jacksonville.—Duval County Comms. ordered election for July 10 to vote on \$950,000 bonds to construct bridge over St. Johns River, from Jacksonville to South Jacksonville. (Lately noted.)

Fla., Molino.—Escambia County Comms., Pensacola, Fla., J. Geo. White, Chmn., ask bids until June 19 to construct steel bridge across Escambia River; Geo. Rommell, Jr., Engr. (See Machinery Wanted—Bridge.)

Fla., Tampa.—Tampa, Atlantic & Gulf Ry. Co., Edw. Walker, Secy.-Treas., Tampa, and C. G. Young, 14 Wall St., New York, Engr., will construct 7 draw bridges, span 50x75 ft.; and 6 ml. concrete protected trestle located in 3 bridges, in connection with 285-mi. railway, from Tampa to East Coast, and Tampa to Gulf Coast.

N. C., Donnoha.—Forsyth and Yadkin counties will construct steel bridge, with concrete masonry, across Yadkin River near Donnoha; bids received by County Comms. of both counties, at Winston-Salem, until June 18; J. N. Ambler, Conslt. Engr., prepared 2 sets of plans; one provides for complete steel bridge, with 16-ft. roadway, 15-ton capacity, on concrete masonry; second plan provides for 4 steel spans on concrete masonry over main bed of river and pile trestle over lowlands on either side to approach; J. M. Lents, Clerk Forsyth County, Winston-Salem. (See Machinery Wanted—Bridge.)

S. C., Lancaster.—Lancaster & Chester Ry., Leroy Springs, Prest., let contract P. G. Curtis & Co., Columbus, Ohio, to rebuild trestle, over Catawba River, destroyed by flood.

Tenn., Brownsville.—Haywood County Court, Jas. Tipton, Chmn. Com., ask bids until June 27 to erect 2 steel bridges across new Forked Deer River Canal; D. Meriwether, Jackson, Tenn., Engr. (See Machinery Wanted—Bridges.)

Tex., Dallas.—Dallas County Comms. will provide permanent bridges on county's portion of Fort Worth-Dallas Pike and construct concrete pavement from end of new embankment of Commerce Street viaduct in Dallas to foot of Obenchain hill in West Dallas, 1½ ml.; also construct similar pavement through Mountain Creek bottom, 1¼ ml.; estimated cost \$73,424, to be provided for from proceeds of \$500,000 road bond issue voted in Nov.

W. Va., Belva.—Fayette County, R. J. Stegall, County Clerk, and Nicholas County, P. N. Wiseman, County Clerk, will construct reinforced concrete arch bridge across Twenty Mile, between the two counties; consist of two 55-ft. clear spans, 16-ft. clear roadway, and four 30-ft. wings; bridge capacity 20-ton roller; bids received by the two county courts, in joint session at Belva, June 26. (See Machinery Wanted—Bridge.)

CANNING AND PACKING PLANTS

Fla., Leesburg.—Lake Packing Co., capital \$25,000, inctpd.; W. R. Mathers, Prest., Leesburg; Geo. T. Clark, V.-P., Fruitland Park, Fla.; J. F. Stunkel, Secy.-Treas., Leesburg.

N. C., Statesville.—Iredell Canning Co., capital \$20,000, organized to establish cannery; daily capacity 10,000 cans.

S. C., Rock Hill.—Rock Hill Community Cannery, A. C. Patterson, Prest. and Mgr., West Main St., will operate cannery with daily capacity 6000 to 8000 cans, mainly tomatoes; has building; purchased machinery, cost \$300. (Lately noted.)

Tenn., St. Elmo.—J. H. Allison & Co. will enlarge packing plant.

CLAYWORKING PLANTS

Ala., Birmingham.—Fire Brick.—Ashby Fire Brick Co., capital \$2500, inctpd.; Herbert Tutwiler, Prest.; H. M. Brooks, V.-P. and Treas.; Lee Mackey, Secy.

Ark., Camden.—John R. Robinson of Camden, Richard Hoehe of St. Louis, Mo., and others will establish plant to manufacture fire brick, tile and other products; develop clay beds of Ouachita County.

Md., Cambridge.—Bricks.—H. L. Longenecker purchased plant formerly operated by Cambridge Brick Co.; will operate with

daily capacity 20,000 sand mold, redface and common brick; no additional machinery required, excepting conveyor. (See Machinery Wanted—Conveyor.)

S. C., Fairfax.—Bricks and Tile.—Geo. D. Sanders may install plant to manufacture bricks and drainage tile. (See Machinery Wanted—Brick Machinery.)

Tenn., Kingsport.—Bricks.—Kingsport Brick Corp. increased capital from \$200,000 to \$350,000.

W. Va., Huntington.—Bathroom Fixtures. Sanitary Mfg. Co. increased capital from \$300,000 to \$500,000; completing addition to plant.

COAL MINES AND COKE OVENS

Ala., Altoona.—Altoona Coal Co., capital \$4000, inctpd.; K. V. Huff, Prest.; G. L. Gruman, V.-P.; both of Altoona; J. E. Anderson, Secy.-Treas., Gadsden.

Ala., Gadsden.—Peters Mineral Land Co., capital \$25,000, inctpd.; L. L. Herzberg, Prest.; W. G. Bellenger, V.-P.; A. P. Reich, Secy.-Treas.; acquires rights on 58,000 acres mineral land in Jefferson, Walker and other counties.

Ala., Parrish.—Railway Fuel Co., capital \$10,000, inctpd. with H. B. Spencer, Prest., Washington, D. C.; W. E. Leake, V.-P., Birmingham; H. F. Pierce, Secy.; H. C. Ansley, Treas.; both of Washington; all are officials of Southern Ry.; develop 2000 to 3000 acres coal land in Walker County; sinking slope for mine to have daily capacity of 2000 tons; install tipples, etc.; coal to be used exclusively by Southern Ry. and allied lines.

Kentucky.—John Henson and M. P. Miller, both of St. Petersburg, Fla., organized company to develop coal mine in Eastern Kentucky.

Ky., Cornettsville.—East Kentucky Coal Co. organized; develop Pratt coal land tract on Louisville & Nashville R. R.; J. E. Jones, Prest.; P. J. Cross, V.-P.; W. G. Jenkins, Secy.-Treas.; J. W. Alloway, Gen. Mgr.

Ky., Harlan.—Portland Coal Co. organized; P. A. Paddock, 22 Cambridge Pl., Brooklyn, N. Y., Prest.; M. C. Fox, V.-P.; Jerome W. Coombs, Secy.; Wm. J. Coombs, Treas.; develop small acreage at present; daily output 1 to 3 cars, or 50 to 100 tons; use hand picks and mule haulage; has equipment. (Lately noted inctpd., capital \$3000.)

Ky., Jackson.—Riverside Coal Co. organized with Emory Cain, Prest.; C. E. Tuttle, V.-P.; Mr. Gunn, Secy.; develop coal mines.

Ky., Mannington.—Mannington Coal Co., capital \$50,000, inctpd. with John B. Brasher, Prest. and Gen. Mgr.; Bessie May Brasher, V.-P.; C. D. Hauger, Secy.-Treas.; all of Louisville; secured several hundred acres coal rights.

Ky., Middlesboro.—Coal Creek Coal Co. organized; W. A. Bowman, Prest.; Bettie Evans, V.-P.; J. E. Evans, Secy.-Treas.; develop 300 acres, with 4 workable seams. (In May noted inctpd., capital \$30,000.)

Ky., Winchester.—Vaughan Construction Co., Shawsville, Va., leased and will develop coal land.

Ky., Yerkes.—Anjean Coal Co., Hazard, Ky., organized; H. B. Jones, Prest.-Mgr.; Geo. Lyttle, V.-P.; B. Lyttle, Secy.-Treas.; develop 500 acres; estimated initial capacity 300 tons; J. L. Morrison, Constr. Engr. (See Machinery Wanted—Mining Equipment.)

Okla., Coalton.—Davison-Johnson Coal Co., capital \$5000, inctpd. by J. P. Davison of Coalton, John Johnson of Shulter, Okla., and B. P. Davison of Coalgate, Okla.

Tenn., Bradel.—New Trosper Coal Co. organized with W. S. Shields, Prest.; J. Frank White, V.-P.; Edgar George, Secy.-Treas., Knoxville, Tenn., care of S. H. George & Sons; Z. T. Ralston, Mgr. (In May, noted inctpd., capital \$20,000.)

Tex., Cookville.—Cookville Coal Co. (H. P. Burford and others) will develop 971 acres; lignite coal only; ordered machinery; hoisting machinery, cost \$5000; will enlarge plant later for by-products. (Lately noted inctpd.)

Va., Big Stone Gap.—Straight Coal Corp., capital \$15,000, chartered; J. P. Adams, Prest., St. Charles, Va.; W. H. Polly, Secy., Big Stone Gap.

Va., Christiansburg.—Merrimac Anthracite Coal Corp., capital \$100,000, chartered; G. Golsen, Prest.; G. H. Doan, Secy.; both of Chicago.

Va., Lynchburg.—Upper Banner Coal Corporation chartered with \$500,000 capitalization; Harrison T. Nicholas, Prest.; Burrell Williams, Secy.-Treas.; wires and writes to Manufacturers Record: Development plans not yet matured; expect to acquire southwestern Virginia coal land to lease for mining.

Va., Pulaski.—W. B. Gunton will develop coal mines.

Va., Roanoke.—Carbon Coal Corp., capital \$50,000, chartered; J. B. Fishburn, Prest.; O. A. Kerns, Secy.

Va., Tacoma.—Camper Coal Co., capital \$25,000, inctpd.; H. G. Camper, Prest., Welch, W. Va.; J. Logan Hill, Secy., Tacoma.

W. Va., Adrian.—Franch Creek Fuel Co., Elkins, W. Va., inctpd., capital \$25,000; Cecil Gross, Prest.; J. W. Bischoff, V.-P.; C. A. Gross, Secy., Treas. and Mgr.; develop 25 acres; daily capacity up to 3 cars; receiving mining machinery bids.

W. Va., Barren Creek.—Barren Creek Coal Co., capital \$25,000, inctpd. by J. B. Ramage, W. D. Evans and Harry H. Humphries, all of Charleston, and others.

W. Va., Buckhannon.—Blackman Coal Co., capital \$5000, inctpd. by J. S. Blackman, H. C. Ash, L. D. Ash and others.

W. Va., Clarksburg.—Janet Coal Co., capital \$10,000, inctpd. by E. G. Larsen of Clarksburg, Chas. S. Holden of Buckhannon, W. Va., R. S. Huber of Mt. Clare, W. Va., and others.

W. Va., Clarksburg.—Stewart Coal Co. organized; W. S. Stewart, Prest.; Harry W. Sheets, V.-P.; W. I. Booth, Secy.-Treas.; holding company. (Lately noted inctpd., capital \$50,000.)

W. Va., Clarksburg.—Mount Airy Coal Co., capital \$10,000, inctpd. by John B. Catlett, Harry C. Frazier, Wada Fluharty and others.

W. Va., Fairmont.—Mutual Coal Co., capital \$20,000, inctpd. by W. O. Conaway and Waiman H. Conaway of Fairmont, Edgar T. Brown of Grafton and others.

W. Va., Greenberry.—Davis Johnson Coal Co., capital \$2000, inctpd. by J. I. Davis, Huntington, W. Va.; G. C. Davis of Charleston, W. Va., and others.

W. Va., Huntington.—Wythe Block Coal Co., capital \$40,000, inctpd. by W. T. Jones, H. C. Hale, John S. Sheppard and others.

W. Va., Kimball.—Safety Pocahontas Coal Co., capital \$25,000, inctpd. by H. Bank of Kimball, L. Kaufman of Bluefield, W. Va., Eugene H. Lopinsky of Welch, W. Va., and others.

W. Va., Logan.—Coal Products Mfg. Co., J. C. Coyley, Prest., Aurora, Ill., will develop coal mine and establish town; contracted for electric power with Logan County Power & Light Co.

W. Va., Logan.—Moon Run Coal Co., capital \$25,000, inctpd. by H. C. Jones and E. H. Butts of Logan; C. A. Parcell of Ethel, W. Va., and others.

W. Va., Logan.—Lawson Coal Co., capital \$25,000, inctpd. by H. C. Jones and E. H. Butts of Logan; A. H. Moore of Huntington, W. Va., and others.

W. Va., Logan County.—Walter G. Merrick of Cleveland, O., purchased Ethel Coal Co.'s mining property; will extend developments.

W. Va., Morgantown.—Cass Coal Co., capital \$9000, inctpd. by J. M. Wood, Geo. W. Wood, Emil T. Schultz and others.

W. Va., Morgantown.—Monongalia Fuel Co., capital \$25,000, inctpd. by L. A. Maust and Ben. Green of Morgantown, A. A. Maust of Myersdale, Pa.

W. Va., Taylor County.—McClernan Coal Co., capital \$100,000, inctpd. by Geo. Debolt and Harry F. Smith of Fairmont, W. Va.; Harold W. Semans of Uniontown, Pa., and others.

CONCRETE AND CEMENT PLANTS

Okla., Ada.—Portland Cement.—Oklahoma Portland Cement Co. will enlarge plant.

Tex., Haskell.—Staves.—Interlocking Cement Stave Silo Co. organized; D. B. English, Prest.-Mgr.; R. R. English, Secy.; for silo construction; install silo fillers for cement staves; Louis Smith, Constr. Engr. Lately noted inctpd., capital \$10,000. (See Machinery Wanted—Rods (Silo), Lugs and Nuts.)

COTTON COMPRESSERS AND GINS

Ark., Walnut Ridge.—Walnut Ridge-Hoxie Compress Co., capital \$50,000, organized by S. C. Dowell, W. A. Dowell, S. E. Spikes, J. G. Richardson and H. L. Ponder; build compress with daily capacity 10,000 bales cotton.

Fla., Starke.—O. J. Griffin of Starke and S. R. Johns of Hampton, Fla., will erect cotton gin.

S. C., McCormick.—Dorn-Finley Co., capital \$10,000, inceptd.; J. J. Dorn, Prest.-Treas.; M. G. Dorn, V.-P.; Preston Finley, Secy. and Mgr.

Tex., Milford.—Farmers' Gin Co., capital \$15,000, inceptd.; J. H. James, Prest.; J. E. Parker, Secy.-Treas.

Tex., Willis Point.—Willis Point Gin Co. organized; C. N. Thatcher, Prest.; W. R. Howell, V.-P.; J. E. Howell, Secy.; D. P. Lawhorn, Mgr.; plant equipped; capacity 50 to 100 bales daily. (Lately noted inceptd., capital \$8000.)

COTTONSEED-OIL MILLS

S. C., Charleston.—Sea Island Cotton Oil Co. increased capital from \$100,000 to \$150,000.

S. C., Pickens.—Pickens Oil & Fertilizer Co., capital \$12,000, inceptd. by I. M. Mauldin, J. McD. Bruce and R. E. Bruce of Pickens, and L. N. Geer of Anderson, S. C.

Tex., La Grange.—Elgin Cotton Oil Co. increased capital from \$35,000 to \$80,000.

DRAINAGE SYSTEMS

Ark., Jonesboro.—Cache River Drainage Dist. contemplates issue of \$250,000 to \$300,000 bonds for drainage construction; district comprises western part of Craighead and eastern parts of Jackson and Lawrence counties; 110,000 acres; 20,000 acres in cultivation; balance, unimproved timber; district 18 mi. long, maximum width 10 mi.; to include 52 mi. ditches; main ditch 25 mi. long, 100-ft. bottom; additional 27 mi. to have 20-ft. bottom; cities of Cash, Dryden, Bono and Risher within the district; S. C. Dowell, Walnut Ridge, Ark., Prest.; B. H. Berger, Treas.; J. C. Hawthorne, Atty.; Jas. R. Rhyme, Corning, Ark., Engr.

Ky., Paducah.—Mayfield Creek Drainage Dist., W. Mike Oliver, Atty., contemplates drainage construction, estimated cost \$302,000; probably be ready to let construction contract about July 20. (Noted in 1916 as planning to drain 40,000 acres.)

Miss., Greenville.—Washington County Drainage Commrs. will clear channels of Black Bayou and Granicus Bayou; 6 mi.; bids until June 11; B. B. Gordon, Engr. (See Machinery Wanted—Excavation.)

N. C., Pembroke.—City, E. M. Paul, Clerk, will issue \$8000 bonds for drainage.

N. C., Wilmington.—Comms. New Hanover County Drainage Dist. No. 3, W. E. Price, Chrmn., ask bids until June 25 to construct 9 mi. drainage ditches; J. L. Becton, Engr., Wilmington. In April, district noted to comprise 2000 acres, work estimated to cost \$15,000. (See Machinery Wanted—Drainage.)

Tenn., Union City.—Obion River Drainage Dist. No. 1 will construct reinforced concrete sluiceway 73 ft. long, 14 ft. wide and 5 ft. deep over all, 4 or 5 single-gate and 1 double-gate reinforced concrete manholes; bids until June 21; Morgan Engineering Co., Engr., Memphis. (See Machinery Wanted—Sluiceway.)

Tex., Harlingen.—Cameron County Drainage Dist., Gordon Hill, Secy., advises Manufacturers Record: Expect to install additional pumping plant unit of 50,000 G. P. M.

ELECTRIC PLANTS

Ark., Paris.—Electric Light Improvement Dist. organized to build electric-light and power plant; W. N. Gladson, Const. Engr., Fayetteville, Ark., is preparing plans and specifications; bids received June 29; construction to include 30x86-ft. brick building, two 100-H. P. boilers, 200-H. P. open-feed water heaters, two feed-water pumps, (about) 160 H. P. steam engine, and 120 K. V. A., 60-cycle, 2300-volt, 3-phase, engine-type alternator, with exciter, switchboard, etc. (See Machinery Wanted—Electric Plant.)

Fla., St. Petersburg.—St. Petersburg Lighting Co. (General Utilities & Operating Co., 123 Munsey Bldg., Baltimore, Md.) authorized improvements costing \$100,000; ordered 4000 K. W. turbine; increase capacity from 3000 K. W. to 7000 K. W.

Ga., Unadilla.—City, C. B. Morgan, Mayor, is considering granting franchise for electric-light plant; bonds having been defeated,

city will not construct plant as noted in March. (See Machinery Wanted—Electric-light Plant.)

Ky., Whitesburg.—W. C. Daniel & Son will install electric-light plant; small capacity; machinery supplied. (W. C. Daniel lately noted as having franchise.)

Md., Baltimore.—Consolidated Gas, Electric Light & Power Co., Lexington St. building, let contract B. F. Bennett Building Co., 123 S. Howard St., Baltimore, to erect engine-house at Spring Garden plant; 36x87 ft.; 1 story; brick and steel.

Miss., Fayette.—City voted \$17,000 bonds to build electric power plant, etc. Address The Mayor.

Mo., Bernie.—G. N. Lasswell and C. L. Coble of Kennett, Mo., have municipal franchise to install electric-light plant.

Okl., Kingston.—Kingston Ice & Light Co., Geo. F. Blethen, Prest.-Mgr., succeeds Kingston Service System. (Lately noted inceptd., capital \$20,000.)

Okl., Okarche.—City is considering installation of electric-light plant. Address The Mayor.

Okl., Oklahoma City.—State Capitol Com., A. N. Leecraft, Secy., Mercantile Bldg., let contract Gross Construction Co., Oklahoma City, to erect power-house; 70x100 ft.; stone and concrete; cost \$62,500; Layton & Smith, Archts., Oklahoma City. (Lately noted inviting bids.)

Va., Portsmouth.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., has plans and specifications for power-house to be erected at Norfolk Navy-yard; plans call for structure 97x156 ft. 8 in., inside measurements; 3 stories; concrete and steel; require 56,000 ft. piles, 25,000 ft. Egyptian slabs, 28,500 sq. ft. ribbed and wire glass, 28,000 sq. ft. steel sash; appropriation, \$232,000; open bids June 4.

Va., Richmond.—City let contract P. J. White & Son at \$7477 to erect addition to city electric plant.

FERTILIZER FACTORIES

Ga., Brunswick.—Brunswick Rendering Co. organized by Geo. H. Cook, B. Abrams and J. T. Colson.

S. C., Pickens.—Pickens Oil & Fertilizer Co., capital \$12,000, inceptd. by I. M. Mauldin, J. McD. Bruce and R. E. Bruce of Pickens, and L. N. Geer of Anderson, S. C.

FLOUR, FEED AND MEAL MILLS

Ark., Knobel.—Bayard A. Scott will erect 20x48-ft. building; cost \$1200 to \$1500; capacity of mill, 25 bbls. flour daily. (Lately noted.)

Ga., Millen.—Millen Crusher Mills, A. S. Boyer, Prest.-Mgr., will erect mill-construction building; install machinery to manufacture bean meal, feed and corn meal; also peanut machinery. (See Machinery Wanted—Corn and Feed-Mill Machinery.)

Ga., Rome.—Farmers Grain & Food Co., capital \$10,000, inceptd. by T. J. Simpson, Julian Cumming, W. W. Woodruff and others.

Miss., Corinth.—B. F. Liddon and others will erect feed mill; 4 stories; brick; let contract to W. B. McCord of Corinth.

N. C., Mebane.—Mebane Milling Co., capital \$25,000, inceptd. by C. P. Cooper, W. S. Crawford and others.

Tex., Plainview.—E. S. Hall of Dallas, and K. C. Ayers of Carnegie, Okla., will erect alfalfa feed mill and 50,000-bu. grain elevator.

Va., Shenandoah.—Shenandoah Milling Co. organized with M. E. Roudabush, Stanley, Va., Prest.; K. M. Roudabush, Stanley, V.-P.; A. A. Roudabush, Secy.-Mgr.; occupy erected building; machinery is supplied. (Lately noted inceptd., capital \$35,000.)

FOUNDRY AND MACHINE PLANTS

Ala., Mobile.—Railway Switches.—United States Switch Co. chartered by W. L. Shepherd, S. J. Winter, B. L. Gaddis, Jr., and others.

Ky., Whitesburg.—Saw Repairs.—W. C. Daniel & Son will install saw-repair shop, for operation in connection with electric-light plant; machinery supplied. (See Electric Plants.)

La., Lake Charles.—Iron Works.—Lake Charles Iron Works, capital \$50,000, inceptd.; J. B. Sterns, Prest., Leesville, La.; Frank Warren, V.-P. and Gen. Mgr.; Joe Herrington, Secy.-Treas.; both of Lake Charles.

Md., Baltimore.—Travelling Cranes.—Chesapeake Iron Works will add manufacture of traveling cranes to present production; con-

structing 90x45-ft. additional building in which to install necessary machinery.

Mo., St. Louis.—Scales.—General Automatic Scale Co., capital \$100,000, inceptd. by Harry C. Schaper, Richard Schied and Wm. J. O'Day.

N. C., Shelby.—Typesetting Machines.—Cade Manufacturing Co. increased capitalization from \$50,000 to \$1,500,000; manufacture typesetting machines; wires Manufacturers Record: Increase to build and equip factory for Cade compotype machine; factory location not determined; probably Shelby.

Okl., Jennings.—Boilers.—Leahy-O'Brien Boiler Co., capital \$10,000, inceptd. by Geo. O'Brien, F. B. Bordenkircher and Richard Leahy.

Tex., Wichita Falls.—Fuel Conveyor.—Edward Williams of Olney, Tex., contemplates establishing plant to manufacture fuel conveyor for cotton gins, etc.

Va., Richmond.—Iron Works.—Tredegar Co. will erect foundry addition; 66x167 ft.; brick; cost \$30,000.

GAS AND OIL ENTERPRISES

Ga., Atlanta.—Filling Station.—Adair & Weinmeister will erect filling station; cost \$2500.

La., Lake Charles.—Benangus Oil & Mineral Co., capital \$50,000, inceptd.; Ben. D. Anguish, Prest.; Robt. H. Deitz, V.-P.; Allen R. Gibson, Secy.-Treas.; all of Chicago.

Mo., Kansas City.—Acme Oil Co., capital \$2400, inceptd. by Frank B. Blair, T. A. Waggoner and Frank D. Bader.

Mo., Kansas City.—Pioneer Oil Co., capital \$75,000, inceptd. by Sam. Trainin, R. E. Sanis and F. C. Harmon.

Mo., Kansas City.—Teffer Oil & Gas Co., capital \$100,000, inceptd. by J. A. Teffer, F. L. Newman and H. L. Sachs.

Mo., St. Louis.—Argyle Oil & Gas Co. chartered with \$100,000 capital by R. D. Sickless, W. G. Kitchen and E. L. Mendonsa.

Okl., Ardmore.—Whaley Oil Co., capital \$50,000, inceptd. by L. S. Dolman and others.

Okl., Blackwell.—Center Pool Royalty Co., capital \$50,000, inceptd. by J. H. White and others.

Okl., Duncan.—Chickasaw Petroleum Co., capital \$10,000, inceptd. by W. W. Payne, O. M. Morris and W. M. Day.

Okl., Edmond.—Habendum Oil Co., capital \$50,000, inceptd. by E. A. Bender and others.

Okl., Gage.—Tockford Oil & Gas Co., capital \$15,000, inceptd. by R. M. Sowers and others.

Okl., Muskogee.—Oil Refinery.—Woods Refined Oil & Gasoline Co., capital \$10,000, inceptd. by A. T. Woods, H. E. Davis and R. Ray.

Okl., Oklahoma City.—Oil Refinery.—Potlatch Oil & Refining Co., capital \$50,000, inceptd. by C. R. Hamilton, A. F. Wood and W. N. Groum.

Okl., Oklahoma City.—Oil Refinery.—Great Northern Oil & Refining Co., capital \$150,000, inceptd. by C. W. Trammell, Earl Gornley and J. E. Ireson.

Okl., Oklahoma City.—St. Louis-Oklahoma Oil Co., capital \$500,000, inceptd. by E. E. Mooney of Oklahoma City, P. J. Scheuermann, W. H. Geller and A. F. Koerner of St. Louis.

Okl., Sapulpa.—Wick Oil & Gas Co., capital \$50,000, inceptd. by J. L. Hughey and others.

Okl., Tulsa.—Gasoline Station.—Sinclair Oil Co. will erect stucco gasoline station; cost \$4000.

Okl., Tulsa.—Stinson Development Co., capital \$24,000, inceptd. by W. A. Stinson and others.

Okl., Tulsa.—Big Horn Petroleum Co., capital \$10,000, inceptd. by Edward Fenlon and others.

Okl., Tulsa.—Gasoline.—Walter White Gasoline Co., capital \$42,000, inceptd. by W. R. Putnam, E. A. Ewing and W. P. Henry.

Tenn., Nashville.—Producers Oil & Gas Co., G. M. Whitson, Engr., will drill 7 or more wells; contract let and equipment purchased. (In May, noted inceptd., capital \$40,000.)

Tex., Houston.—Pipe Line.—Tidewater Pipe Line Co., capital \$20,000, inceptd. by Mills Bennett and J. E. Duley of Houston, and J. E. Josey of Beaumont.

Tex., Houston.—Couch-Sowell Oil Co., capital \$25,000, inceptd. by F. E. Couch, R. H. Sowell and T. W. Sowell.

Tex., Houston.—Nomad Oil Co., capital

\$7500, inceptd. by M. Nicholson, W. C. Moore and W. Waddo.

Tex., Wichita Falls.—Adams Oil Co., capital \$50,000, inceptd. by T. P. Adams, W. E. Norton, R. O. Harvey and others.

W. Va., Charleston.—Crossing Oil & Gas Co., capital \$25,000, inceptd. by Geo. W. McClintic, R. G. Walsh, T. P. Williams and others.

W. Va., Charleston.—Backus Oil & Gas Co., capital \$25,000, inceptd. by Geo. W. McClintic, R. G. Walsh, T. P. Williams and others.

W. Va., Downs.—Gas-Producer Plant.—Hope Natural Gas Co., Fairmont, W. Va., will build producer gas station; 3 units at present; daily capacity 15,000,000 cu. ft.; manufacture gas from coal; tar to be only by-product, but later may add ammonia, etc.; install 2 pumps of 500 H. P. each and power plant composed of 2 generators of 450 K. W. capacity; B. H. Shuck, representing Steere Co., Engr.

W. Va., Logan.—Logan-Roane Oil Co., capital \$10,000, inceptd. by Naman Jackson, E. M. Coffman, B. C. Harris and others.

W. Va., Logan.—Logan-Roane Oil Co., capital \$10,000, inceptd. by Naman Jackson, E. M. Coffman, B. C. Harris and others.

W. Va., Parkersburg.—State Oil Co., capital \$5000, inceptd. by O. J. Stout, Geo. E. Work, F. L. Lemley and A. R. Horner.

W. Va., Parkersburg.—Stout Oil Co., capital \$5000, inceptd. by O. J. Stout, W. E. Stout, Geo. E. Work and others.

HYDRO-ELECTRIC PLANTS

N. C., Bridgewater.—Western Carolina Power Co. of Charlotte, N. C., advises Manufacturers Record: Build plant of 25,000 K. V. A. near Bridgewater and another plant of about 70,000 K. V. A. near Camden, S. C.; building these 2 plants will necessitate extension of transmission lines, building additional substation, etc. (Lately noted under N. C., Charlotte, to increase capital from \$300,000 to \$4,500,000.)

Okl., Ada.—Oklahoma Power & Transmission Co. (noted in January as to build plant on Canadian River, 4½ mi. north of Ada) will build plants at Ada and Shawnee, Okla.; Sinclair Mainland of Chicago, Prest.; W. H. Zimmerman, at Ada, Construction Engr., who advises Manufacturers Record: Plants to cost probably \$500,000; develop 7000 to 10,000 K. W. for transmission to Ada, Shawnee, Lawrence, Pittsburg, Roff, Tupelo, Stonewall, Colgate, etc.; 100 mi. transmission system; erect concrete building for power-house; also build substations; machinery to include two 3500 K. W. steam turbines, 12 Heine boilers, etc.; concrete stack; construction by force account under supervision of W. H. Zimmerman of W. H. Zimmerman Co., Chicago. (See Machinery Wanted—Hydro-electric Plant Materials, etc.)

S. C., Camden.—Western Carolina Power Co. of Charlotte, N. C., will construct plants near Camden and Bridgewater, N. C.; advises Manufacturers Record: Build plant of 25,000 K. V. A. near Bridgewater and another plant of about 70,000 K. V. A. near Camden; building these 2 plants will necessitate extension of transmission lines, building additional substation, etc. (Lately noted under N. C., Charlotte, to increase capital from \$300,000 to \$4,500,000.)

W. Va., Martinsburg.—Potomac Light & Power Co. will remodel dam No. 5 plant and install two 1000 H. P. vertical shaft units; let water-wheel contract to James Legel & Co., Springfield, O., and electric generator contract to Electric Machinery Co., Minneapolis, Minn.; construction of necessary building and installation of machinery by Potomac Company under direction of Sanderson & Porter, 52 William St., New York. (Noted in November to have plans prepared for improvements, etc.)

ICE AND COLD-STORAGE PLANTS

Miss., Meridian.—City voted bonds to build ice and cold-storage plant; estimated cost \$75,000. John M. Dabney, Mayor. (Lately noted.)

Okl., Kingston.—Kingston Ice & Light Co., Geo. F. Blethen, Prest.-Mgr., succeeds Kingston Service System. (Lately noted inceptd., capital \$20,000.)

Okl., Picher.—Central Ice & Water Co., Alex. Cook, Mgr., will build 10-ton ice plant. (Lately noted inceptd. with \$16,500 capital by John Combs and others.)

Va., Winchester.—Winchester Cold Storage Co. increased capital from \$100,000 to \$150,000.

IRON AND STEEL PLANTS

Va., Roanoke.—Iron Furnace.—Old Dominion Pig-Iron Corp., John B. Guernsey & Co., Mgrs., advises M. R.: Work being rushed on rebuilding of West End furnace, preparatory to early operation on special foundry iron high in manganese; daily capacity, 150 tons on native ores; equipped with skip hoist, automatic top and extra stove capacity; probable that speigle and ferro-manganese will be produced about Oct. 1; control manganese mines near Lynchburg; W. T. Rutherford (formerly Supt. Virginia Iron, Coal & Coke Co.) is Supt. (Lately noted as expecting to blow in about June 14 after overhauling and extensive repairs.)

LAND DEVELOPMENTS

Fla., De Soto Beach.—De Soto Beach Improvement Co., Titusville, Rufus M. Robbins, Pres., and Richard P. Robbins, Secy.-Treas., will develop 186 acres on Atlantic Ocean beach near Titusville; townsite and beach improvements. (Lately noted inceptd., capital \$20,000.)

Fla., Tampa.—Myrtle Hill Cemetery Co., capital \$120,000, inceptd.; Dan S. Wells, Pres., and Gen. Mgr., Tampa; T. O. Wilson, V.-P.; Clifton D. Benson, Secy.-Treas.; both of Miami.

Mo., St. Louis.—Wilkinson Orchards Co., 7103 Dale Ave., capital \$4000, inceptd.; W. R. Wilkinson, Pres.; A. C. Wilkinson, Secy.; will rent, lease or buy bearing orchards in Missouri and Illinois.

N. C., Lillington.—Central Carolina Land Co., E. A. Tennis, Pres., and J. R. Baggett, V.-P., will develop 50,000 acres between Lillington and Jacksonville, N. C.; farms; cost of improvements, \$300,000. (Lately noted inceptd., capital \$100,000.)

Okla., Miami.—Miami Improvement Co., capital \$50,000, inceptd. by T. H. Martin, W. L. Marshall and W. S. Milligan.

Va., Fieldale.—Marshall Field & Co., Chicago, have plans and specifications to develop 2000 acres of land for industrial city site, textile mills, etc.; mill sites on hill surrounded by other hills, upon whose slopes will be built hundreds of dwellings for employees; Fieldale is on Norfolk & Western and Danville & Western Rys., 4 mi. northwest of Martinsville, Va.; city improvements to include boulevards, avenues, streets, parks, churches, Y. M. C. A. building, playgrounds, electric-lighting plant, water-works, sewer system, etc.; development under management Geo. W. Fraker and E. D. Pitcher, both of Spray, N. C., Mr. Fraker being president of Carolina Cotton & Woolen Mills Co., controlled by Marshall Field & Co. (Marshall Field & Co. noted in May, under Martinsville, Va., as advising Manufacturers Record: Engineers laying out townsite, plans for mills being prepared, soon to begin building construction, etc.)

W. Va., Charleston.—West Albans Land Co., capital \$25,000, inceptd. by R. W. McGuire, C. T. Hardman, Geo. A. Henderson and others.

LUMBER MANUFACTURING

Ala., Hartsboro.—Hartsboro Lumber Co. advises Manufacturers Record: Not decided as to rebuilding at Hartsboro, but will erect plant somewhere; loss was about \$30,000. (Lately noted burned.)

Ala., Mobile.—Marine Lumber Co., capital \$7500, inceptd.; E. T. Carvin, Pres.; Cleveland Henderson, V.-P.; E. G. Maxon, Secy.-Treas.

Ark., Berryville.—Walker-Hines Lumber Co., capital \$8000, inceptd.; Will Walker, Pres.; C. E. Walker, V.-P.; E. C. Hines, Secy.-Treas.

Ark., Moro.—Beaver Dam Lumber Co., Brinkley, Ark., organized; J. N. Carroll, Pres.; E. L. Black, V.-P.; W. B. Carroll, Secy.-Mgr.; install portable sawmill, cost \$3000; daily capacity 15,000 ft. oak, maple, gum, elm and hickory.

Ark., Stamps.—Bodcaw Lumber Co. of Louisiana, capital \$150,000, inceptd.; purchased Bodcaw Lumber Co.'s property; John G. Wagner, Pres.; Thos. F. Gillespie, V.-P.; Wm. B. Boney, Secy.-Treas.

Fla., Alton.—Standard Lumber Co. will rebuild dry kilns reported burned at loss of \$40,000, including lumber.

Fla., Iona.—Ostego Bay Lumber Co., capital \$30,000, organized by A. L. Durrance, John W. Pelot and D. R. Cameron; build 4 mills; daily capacity 30,000 ft.; develop 15,000-acre timber tract, 8000 acres to furnish logs for mills and 7000 acres worked for turpentine.

Fla., Manatee.—Manatee Lumber Co. advises Manufacturers Record: Applied for charter, capital stock \$75,000; J. J. Heckart, Aberdeen, N. C., Pres.; Geo. Burchill, Frackville, Pa., Treas.; A. D. Updegraff, Drake, S. C., Gen. Mgr. and Secy.; manufacture long-leaf dimension and dressed lumber; primary mill in operation in 60 days, larger and permanent mill in 6 months. Company is reported to have purchased timber on 26,000 acres.

Ky., Louisville.—Scheffel Lumber Co. increased capital from \$30,000 to \$100,000.

La., Bowie.—Bowie Lumber Co. may rebuild mills, etc., lately noted burned; R. H. Downman, Pres., Iberia Bldg., New Orleans, advises Manufacturers Record: Have not decided as to rebuilding; may not rebuild, but utilize one of other mills to reduce timber.

La., Bogalusa.—Chas. W. Ames of Crawfordsville, Ind., and others organized company to build veneer and box factory; purchased machinery; purchased 590 acres hardwood timber lands in forks of Bogue Chitto and Pearl Rivers.

Miss., Meridian.—Harris-Brooks Lumber Co., capital \$30,000, inceptd. by C. K. Brooks and others.

N. C., Elizabeth City.—Foreman-Blades Lumber Co. will rebuild burned plant; has let contract for land and resaw mill.

N. C., Wilmington.—Tidewater Tie & Lumber Co., capital \$25,000, inceptd. by P. G. Taylor, R. L. Taylor and E. M. Norfleet.

N. C., Toxaway.—Toxaway Lumber Co. organized; W. J. Owen, Pres.-Mgr.; O. W. Clayton, V.-P.; T. S. Clayton, Secy.; develop timber on west fork of French Broad River; use flume; saw timber by portable mills, under contract, etc.; operating commissary; capital \$100,000. (In Apr. noted inceptd.)

S. C., Sumter.—Penn Sumter Lumber Co., Philadelphia, Pa., let contract to Steel Products Co., Savannah, Ga., to rebuild portion of plant (boiler-room) lately noted burned at loss of \$5000; all supplies purchased; G. L. Allen, Savannah, Constr. Engr.

S. C., Young's Island.—Hollywood Mfg. Co. increased capital from \$30,000 to \$100,000.

Tex., Houston.—Day-Miller Lumber Co., capital \$12,000, inceptd. by S. S. Day, Chas. W. Miller and Harry G. Cern.

Va., Winchester.—Forest Glen Orchard Co., G. F. Hetzer, Williamsport, Md., Pres., will install saw and stave-mill machinery. See Woodworking Plants. (See Machinery Wanted—Saw and Stave-Mill Machinery.)

METAL-WORKING PLANTS

Md., Baltimore.—Tubing, etc.—Baltimore Tube Co., Wicomico and Bayard Sts., will increase output of plant and add new department to about double size of present plant; erect mill to manufacture sheet brass and copper; new unit, 600x140 ft.; expenditure \$500,000 to \$600,000.

MINING

Ala., Ashland.—Graphite.—R. G. Rowland and others plan to develop 220 acres graphite land.

Ala., Birmingham.—Graphite.—Gulf States Graphite Co., capital \$200,000, inceptd.; D. S. Martin, Pres.; Geo. R. Simcox, V.-P.; John M. Hughes, Secy.-Treas.

Ala., Russellville.—Iron.—Sheffield Coal & Iron Co. is reported to expend \$150,000 for building 2 iron ore washers in Russellville District.

Ala., Sylacauga.—Marble.—Madras Marble Co., E. M. Banon, Gen. Mgr., New York, will build quarry plant; consist of 8 gang saws and 30-ton crane with 75-ft. span.

Ark., Everton.—Everton Mining & Developing Co. will increase mill capacity; add 6 concentrating tables; J. H. Mobly, Supt.

Ark., Marble City.—Lead and Zinc.—Continental Mining Co. organized by W. O. Krueger, Fred. H. Krueger and others; leased 600 acres mining land and purchased mill.

Ark., Mena.—Manganese.—Arkansas Ore & Development Co. inceptd.; J. W. Dawson, Pres.; Ben. C. Easton (Secy. Chamber of Commerce Hugo, Okla.) and W. B. Willis, V.-Ps.; W. E. Downs, Secy.-Treas.; develop manganese mine on Blowed Out Mountain, 9 mi. from Mena.

Ark., Fancy Mountain.—Manganese.—Whitson Co., Nashville, Tenn., and Hot Springs, Ark., G. M. Whitson, Pres.-Mgr., will develop 250 acres, Montgomery County; machinery mainly supplied. Noted in April. (See Machinery Wanted—Mining Machinery.)

Ark., Rush.—Lead and Zinc.—A. F. C. Mining Co. inceptd. with \$10,000 capital; W. C. Humphries, Little Rock, Pres.; W. D. Crawford, Jr., Benton, V.-P.; Joseph P. Bussey, Rush, Secy.-Treas.

Mo., Joplin.—Lead and Zinc.—Utility Mines Co., capital \$10,000, inceptd. by W. B. Bash, Edward Buxton and J. R. Grigg.

Missouri.—Iron.—Missouri Ore Co. chartered with \$10,000 capital by George F. Jebbett of New York, and others.

Okla., Mangum.—DeArman Mining Co., capital \$100,000, inceptd. by T. S. DeArman, P. A. Janeway and C. P. Hamilton.

Okla., Miami.—Goodenough Mining Co., capital \$10,000, inceptd. by L. B. Williams, E. C. Mahon and B. H. Wilson.

Okla., Miami.—O. K. & M. Mining Co., capital \$50,000, inceptd. by L. A. Huston, I. Phillips and R. J. Dixon.

Tex., Dallas.—Sulphur.—United States Sulphur Co. chartered with \$600,000 capital by R. L. Spann, A. Thad Darr, E. T. Matson, M. W. Florer and H. A. Dodge; Mr. Florer, Pres., wires Manufacturers Record: Company owns 80 acres; much already developed and proven to have immense deposits of high-grade sulphur ore; have 200 acres under leases from State; construct refinery with daily capacity 100 tons commercial sulphur; have let plant contract.

Tex., Houston.—Sulphur.—Tidewater Sulphur & Mfg. Co., H. P. Rhodes, Engr., is reported to install plant with daily capacity 200 tons sulphur and to add other units until capacity is 1000 tons. (Previously reported organized, etc.)

W. Va., Armor.—Warbride Mining Co., Williamson, W. Va., organized; B. R. Bias, Pres.; L. G. Bray, V.-P. and Mgr.; Harry Scher, Secy.; Wells Goodykoontz, Treas.; develop 200 acres. (Lately noted inceptd., capital \$100,000.)

MISCELLANEOUS CONSTRUCTION

Fla., Jacksonville.—Pier.—Clyde Steamship Co., W. M. Tupper, Supt., Jacksonville, Fla., let contract to W. P. Richardson & Co., Jacksonville, to replace Pier No. 1 and passenger office at head of pier; construction to be supervised by Clyde Steamship Co.'s engineer, D. D. Hargan, New York office, Pier 36, North River. (Noted in April to reconstruct burned dock.)

MISCELLANEOUS ENTERPRISES

D. C., Washington.—Contracting.—Michael A. Weller Co., capital \$25,000, inceptd.; Michael A. Weller, Pres., 700-701 Equitable Bldg.; Ida Witkowski, Secy.

Fla., Eustis.—Printing.—Lake County Publishing Co., publisher of Eustis Lake Region, will erect building; 65x80 ft.

Ga., Dublin.—Sweet Potato Curing.—Dublin Stock Yards Co. (L. C. Pope, Watkins and La Frage) will establish 3 houses (different sections) for sweet potato curing; houses about 10,000 to 20,000 bu. capacity each; wood structures, probably shingle roofs, double flooring; electric lighting; contracts not yet let.

Ky., Paducah.—Grain Elevator.—Paducah Grain & Elevator Co. organized by P. A. Jones of La Center, Ky., and others; remodel building; install elevator machinery, shellers and mixed feed manufacturing equipment.

La., Baton Rouge.—Stockyards.—Baton Rouge Union Stockyards Co., John B. Rucker (Traffic Mgr., Baton Rouge Chamber of Commerce), Secy., inceptd.; capital stock \$25,000, to establish distributing and shipping center for livestock; occupy 10 acres, North Baton Rouge, with connections to all railroads entering city.

Md., Baltimore.—Grain Elevator.—Pennsylvania R. R., Geo. R. Sinnickson, Gen. Agt., Baltimore, and A. C. Shand, Ch. Engr., Philadelphia, let contract to Maryland Dredging & Constructing Co. to dredge for elevator construction; understood Pennsylvania will soon order construction of grain elevator costing more than \$4,000,000; 15 stories high; capacity to exceed 3,000,000 bu.; fireproof construction; concrete reinforcing steel; equipment for loading and unloading 5 ocean steamships at one time, 3 on one side and 2 on other; grain shed facilities for unloading 20 cars; Jas. Stewart & Co., Engrs. and Contrs., Chicago. (Elevator details previously noted.)

Mo., Springfield.—Heating and Plumbing.—Home Heating & Plumbing Co., capital \$2000, inceptd. by Robt. Jones, Jas. Taylor and Chas. Hall.

Okla., Lone Wolf.—Grain Elevator.—Farmers Grain Co. organized; J. M. Higgins,

Pres.-Mgr.; let contract for erection of 24x22-28 metal building; building and machinery cost \$4387. (Lately noted.)

Okla., Tulsa.—Hardware.—Southern Hardware Co., capital \$60,000, inceptd. by Jon. Drouot, D. H. Wertberger and D. A. Smith.

S. C., Charleston.—Transfer.—Charleston Transfer & Storage Co., capital \$5000, inceptd. by W. J. Bresnihan and W. A. O'Hagan.

S. C., Manning.—Ferry.—Santee River Ferry Co., capital \$5000, inceptd.; J. K. Breedin, Pres.; E. F. Iricks, Secy.-Treas.

S. C., Whitestone.—Water Bottling.—Whitestone Mineral Springs Co., capital \$50,000, inceptd. by Arch B. Calvert and Ansel B. Calvert.

Tenn., Collinwood.—Publishing.—Pilot Publishing Co., capital \$1000, inceptd. by E. H. Steinman, John H. Dewitt, I. L. Pendleton and others.

Tenn., Knoxville.—Contracting.—East Tennessee Contracting Co., capital \$5000, inceptd. by W. H. Shaver, E. M. Wilkerson, R. A. Cawood and others.

Tex., Plainview.—Grain Elevator.—E. S. Hall of Dallas, and R. C. Ayers of Carnegie, Okla., will erect 50,000-bu. grain elevator and alfalfa feed mill.

W. Va., Mullins.—Contracting.—McArthur & Co., capital \$25,000, inceptd. by M. T. McArthur and T. R. Porter of Sullivan, W. Va.; G. H. Smith, Knoxville, Tenn., and others.

MISCELLANEOUS FACTORIES

Ala., Brundidge.—Peanut Oil.—Hightower Oil Co. organized; C. W. Hightower, Pres.; J. T. Ramager, V.-P.; E. M. Hightower, Secy.-Treas. and Mgr.; will occupy erected building; daily capacity 1500 gals. crude peanut oil and 26,000 lbs. meal; lately noted incorporated, capital \$35,000. (See Machinery Wanted—Engine and Boiler.)

Ala., Crichton.—Fiberboard.—Gulf Paper Mills Co., capital \$75,000, inceptd. by W. J. Armstrong, D. H. Greene and M. McGowan; all of Mobile; utilize shavings, saw dust and other refuse from Crichton Lumber Co.'s mill; initial daily capacity 10 tons; possible to increase output to 60 tons daily; purchased equipment; machinery for paper manufacture to be installed later. Mr. Greene, Mgr.

Ala., Mobile.—Paper Boxes, Tubes, etc.—Mobile Box & Paper Co., Tenth and Emanuel Sts., organized; Oscar Green, Pres.; G. J. Clausen, V.-P.; J. F. Carter, Jr., Secy.-Mgr.; machinery is supplied; manufacture paper boxes, tubes, etc. (Lately noted inceptd., capital \$15,000.)

Ark., Fort Smith.—Glass.—Friedrich Corp., capital \$100,000, organized by C. A. Friedrich and others of Chicago; build plant costing \$50,000.

Ark., Fort Smith.—Glass.—Radiant Glass Co. (branch of Tulsa Glass Co., Tulsa, Okla.) will double capacity of plant; cost \$150,000.

Ark., Fort Smith.—Window Glass.—Model Window Glass Co. will erect \$75,000 mill-construction building and install machinery to manufacture window glass; daily capacity 400 boxes; Lewis Maxwell, Pres.; C. P. Zenor, Sr., V.-P. and Gen. Mgr.; B. B. Langfitt, Secy.

Ark., Little Rock.—Seat Covers.—Myr Mfg. Co., capital \$10,000, inceptd. by Sam A. Myr, John W. Myr, C. C. Brandt and H. B. Solmsion.

Ga., Cuthbert.—Peanut Crushing, etc.—Coleman Oil Mill inceptd.; W. M. Sutton, Pres.; J. A. Belcher, V.-P.; W. H. Joiner, Secy.; B. W. Rish, Treas.; B. L. Brown, Mgr.

Ga., Millen.—Peanuts.—Millen Crusher Mills, A. S. Boyer, Pres.-Mgr., will install peanut machinery. (See Flour, Feed and Meal Mills.)

Ky., Louisville.—Windshield.—Improved Windshield Mfg. Co., capital \$30,000, inceptd. by W. R. Shacklette, J. Bauer and D. T. Duckwall, Jr.

La., New Orleans.—Candy and Chocolate.—Fuerst & Kraemer will install candy and chocolate plant in buildings at Canal St. and Claiborne Ave. to be remodeled by Tulane Educational Fund; cost \$21,575; Jas. Geary, Contr.

Mo., Kansas City.—Mattresses.—Underwood Mattress Co., 533 Delaware St., organized; T. J. Underwood, Pres.; B. D. Underwood, V.-P.; Seth H. Leach, Secy.-Treas.; leased floor space; manufacture high-grade bedding. (Lately noted inceptd., capital \$10,000.)

Mo., Kansas City.—Toys.—Gundy Playthings Mfg. Co. increased capital from \$50,000 to \$75,000.

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Mo. St. Louis-Bakery.-J. Hahn Bakery Co. increased capital from \$30,000 to \$130,000.
Mo. St. Louis-Paint.-Majestic Paint Co., capital \$30,000, Incptd. by S. B. Cowan, E. C. Breck and Chester Chapline.

Mo. St. Louis-Chemical Laboratories.-Judge & Dolph Drug Co. will establish manufacturing laboratories on upper floors of 5-story buildings at 417 N. Broadway and 510-512 St. Charles St.; 16,000 sq. ft. additional floor space.

Mo. St. Louis-Hats.-Progressive Hat Mfg. Co., capital \$50,000, Incptd. by Isaac Siefer, Sigmund Trattner and others.

N. C. Albemarle - Bottling.-Albemarle Bottling Co., capital \$20,000, Incptd. by A. P. Wilson of Greensboro, N. C.; D. H. Hall of Salisbury, N. C., and J. D. Barnhardt of Richfield, N. C.

N. C. Durham-Ice-Cream.-Durham Ice-Cream Co., capital \$25,000, Incptd. by A. A. Murdock, Prest.; J. E. Smith, Secy.-Treas.; continues established plant.

N. C. Gastonia-Bottling.-Bludwine Bottling Co., capital \$25,000, Incptd. by C. P. Mauney and others.

N. C. Madison-Suspenders.-Penn Bros. Suspender Co. increased capital to \$50,000.

N. C. Winston-Salem.-R. J. Reynolds Tobacco Co. will increase capitalization from \$15,000,000 to \$20,000,000; wires Manufacturers Record: Additional capital is not for further improvement, but to meet obligations caring for increased business during past year. Further writes to M. R.: Directors deemed it advisable to issue remaining 50,000 shares preferred stock and to use proceeds in retiring outstanding obligations for tobacco and other materials, also for erection and equipment of buildings completed and others in course of construction previous etc was necessary to take care of large increase in business for past several years.

Okla., Tulsa-Candy.-H-O Candy Co., 102 S. Cincinnati St., organized; J. K. Hogan, Prest.-Mgr.; C. C. Hogan, V.-P.; V. K. Hogan, Secy.; occupy erected building; purchased equipment; manufacture peanut and cocoanut candy and salted nuts. (Lately noted Incptd.)

Okla., Tulsa-Confectionery.-J. A. Waldrep, 215 E. First St., let contract to John Simpson Construction Co., Los Angeles, Cal., to erect 50x120-ft. building for office, stockroom and factory 3 floors; cost, without equipment, \$50,000; steel-concrete and brick construction; composition roof; cement and steel floors; hot-air heat; electric lighting; cement sidewalk, and prism light glass; elevator, cost \$1850; Architects, Vansiclen & Colignon, 319 S. Detroit St., Tulsa. (Lately noted under Stores.)

S. C. Charleston-Mattresses, etc.-Karl E. Stello Mfg. Co., capital \$25,000, Incptd.; Karl E. Stello, Prest.-Treas.; Henry D. Schweers, V.-P.; Arthur W. Muller, Secy.

S. C. Charleston-Bottling.-Chero-Cola Bottling Co., capital \$35,000, Incptd. by J. M. Albergoth, A. C. Watson and J. Stokes Salley.

S. C. Greenville-Bottling.-Coca-Cola Bottling Co. will double capacity of plant; cost \$10,000.

S. C. Spartanburg-Ice Cream.-Quality Ice Cream Co., capital \$20,000, Incptd. by Arch B. Calvert, J. W. Allen and F. C. Walter.

Tenn., Chattanooga-Candy.-Brock Candy Co. increased capital from \$200,000 to \$300,000.

Tenn., Nashville-Disinfectants, etc.-Nashville Products Co., 912 Church St., organized by I. W. King and Henry Foster; manufacture floor-cleaning preparation and disinfectants.

Tex., Dallas-Caps.-Tucker Cap Mfg. Co., capital \$10,000, Incptd. by Herman Tucker, Henry Salzenstein and Jake Metzler.

Tex., Fort Worth-Robo Manufacturing Co. chartered by Frank Johnson of Fort Worth, W. A. Scott of Abilene, Tex., and G. W. Boyce of Merkel, Tex.

Tex., Granbury-Peanut Plant.-Earl Cogdell, care Granbury Cotton Oil Co., will erect plant to manufacture peanut oil, butter, shelled peanuts, etc.; will need machinery and equipment. (See Machinery Wanted-Peanut Factory Equipment, etc.)

Tex., Stamford-Electric Batteries.-Hydro Electro Metallic Battery Co., capital \$20,000, Incptd. by C. L. Pittman, D. L. Humphrey, J. P. Johnson and others.

Va., Norfolk-Bottling.-Norfolk Tuka Kola Bottling Corp., capital \$50,000, chartered; Edward L. Bell, Prest.; N. D. Bell, Secy., both of Holland Ave., Winona, Va.

W. Va., Warwood-Corrugated Fiber Boxes.-U. S. Corrugated Fiber Box Co.

Indianapolis, Ind., will open bids in about two weeks to erect brick and concrete 2-story 80x600-ft. building; Chas. E. Bacon, Archt., Indianapolis; install corrugated box machinery. (Lately noted to construct \$300,000 factory.)

MOTOR CARS, GARAGES, TIRES, ETC.

Ky., Paducah-Automobile Starter.-Special Ford Starter Co., capital \$20,000, Incptd. by Harry Wallace, E. C. Phelps and Sam E. Foreman.

La., New Orleans-Garage.-H. M. Field will erect garage; plans by Walter Cook Keenan, New Orleans.

Md., Baltimore-Dreadnaught Tire & Rubber Co., Eager and 5th Sts., advises Manufacturers Record: Further financing is for taking care of sales; plant up to 300 tires and 250 tubes daily, with exception of some additional molds and cores, which will be in position by June 30. (Lately noted to increase capital from \$700,000 to \$1,400,000.)

Mo., Kansas City-Garage.-Jas. McQueeney will erect 1-story garage; cost \$10,000.

N. C. Albemarle-Garage.-N. G. Arey let contract to N. A. Moody, Albemarle, to erect 50x80-ft. stone garage, cost \$4000; tin or tar roofing; wood floors.

N. C. Cherryville-Garage.-Matthew A. Stroup will occupy garage building to be erected by D. M. Brittain, owner; plans by C. A. Mauney, Cherryville; brick structure, with sheet-iron roofing, cement floors; size 40x100 ft.; cost \$2000; electric lighting.

Okla., Tulsa-Automobiles.-Packard Oklahoma Motor Co., capital \$10,000, Incptd. by Huette F. Ahy and G. Y. Parrish of Tulsa, and W. J. Parrish of St. Louis, Mo.

S. C. Greenville-Automobiles.-Mayer Auto Line Incptd. by Thos. I. Charles and Herman S. Meyer.

Tex., Beaumont-Jefferson County Auto Co., capital \$5000, Incptd. by R. L. Brown of Beaumont, A. Lipper and Geo. Lipper of Houston.

Tex., Dallas-Automobiles.-Southwestern Sales Agency, capital \$15,000, Incptd. by M. Hull, Chas. D. Turner and Edwin Hobbs.

Tex., Fort Worth-Automobiles.-Fort Worth Auto Bus Co., capital \$20,000, Incptd. by Geo. H. Clifford, W. C. Forbess and V. W. Berry.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

La., Baton Rouge-Yazoo & Mississippi Valley R. R. let contract T. S. Lenke Co., Chicago, to construct roundhouse, machine shop, office building, storehouse, lavatory, lumber shed, cinder pit and turntable; cost \$150,000.

ROAD AND STREET WORK

Ala., Eutaw-Greene County Commrs. let contract to Miller, Patton & Co., Knoxville, Ala., for 2 1/2 mi. grading and draining; \$6000 available; H. O. Gosa, Union, Ala., Engr.; W. S. Keller, State Highway Engr., Montgomery, Ala. (Bids noted in May.)

Ark., Pine Bluff-Jefferson County, Road Improvement Dist. No. 14, D. B. Niven, Chairman, will construct 40 miles of bituminous macadam roads; bids until June 20; Humphreys & Tovey, Engrs., 416 Citizens Bank Bldg., Pine Bluff. (See Machinery Wanted-Road Construction.)

Fla., Miami-City will construct following: Contract No. 1, highway improvements H-65, H-75 and H-76, 13,000 sq. yds. broken-stone pavement and 5000 lin. ft. concrete curb and gutter; contract No. 2, highway improvements H-67, H-68, H-69 and H-70, 10,000 sq. yds. broken-stone pavement and 7500 lin. ft. concrete curb and gutter; contract No. 3, highway improvements H-71, H-72, H-73, H-66, H-74 and H-77, 15,000 sq. yds. broken-stone pavement and 2500 lin. ft. concrete curb and gutter; contract No. 4, highway improvements H-65 to H-77, both inclusive, furnishing 34,000 gals. light road oil; also contract No. 1, Sidewalk Dists. 14 and 15, 1500 sq. yds. concrete sidewalk and 2800 lin. ft. concrete curb; contract No. 2, Sidewalk Dists. 16 and 17, 5000 sq. yds. concrete sidewalks; contract No. 3, Sidewalk Dists. 12 and 19, 2600 sq. yds. concrete sidewalk; bids until June 14; W. B. Moore, City Clerk. (See Machinery Wanted-Paving.)

Ga., Montezuma-City voted bonds to pave business section. Address The Mayor.

Ky., Greenville-Muhlenberg County Commissioners ordered election August 4 to vote on special tax amounting to \$13,000 for road construction.

Ky., Hindman-City will improve streets; expend several thousand dollars. Address The Mayor.

Ky., Lexington-City Commrs. let contract Carey-Reed Co. of Lexington at total of \$12,200.45 to pave sections of Mechanic and Merino Sts. and Kenilworth Pl.

Ky., Princeton-Caldwell County defeated \$200,000 bonds to construct roads. (Lately noted.)

Ky., Whitesburg-City contemplates street improvements to cost several thousand dollars. Address The Mayor.

Md., Baltimore-Wm. E. Harmon & Co. let contract Slingluff-Browne Co., 625-626 Munsey Bldg., Baltimore, to construct 44,490 ft. cement sidewalks at Fairlawn.

Md., Baltimore-City let contracts to grade, curb and pave following streets: F. B. Beasman & Co., 2307 Becks La., at \$34,728, Contract No. 166, 33d St. extension, from Hillen to Harford Rds.; 9300 sq. yds. sheet asphalt, 3550 lin. ft. armored concrete curb, 500 sq. yds. brick gutters and 18,000 cu. yds. grading; Howard & Flor, 1707 W. Pratt St., at \$2600, Contract No. 155, Woodberry Ave., from Pimlico Circle to Green Spring Ave.; 13,000 cu. yds. grading; P. Flanagan & Sons, Harford Rd. and B. & O. R. R., at \$11,529.50, Contract No. 154, sections of Abell and Elberslie Aves., McPhail St. and University Parkway; 11,500 sq. yds. sheet asphalt, 5900 lin. ft. armored concrete curb, 950 sq. yds. brick gutter and 19,000 cu. yds. grading. (Lately noted inviting bids.)

Miss., Jackson-Hinds County will improve Askew extension road near Edwards, Miss.; J. L. Redfield, Chrmn. Highway Com.

Mo., Carthage-City let contract Lynch-McDonald Construction Co., Moberly, Mo., to pave South Main St.

Mo., Caruthersville-City will pave 33 streets costing total of \$77,101.50; concrete foundation; tar and gravel surface; streets include section of Carleton Aves., West Sixth, West Fourth, West Seventh and West Tenth Sts.

Mo., Liberty-Clay County Commrs. will issue \$1,250,000 road bonds, previous vote (in litigation) having been declared valid.

N. C., Clinton-City, H. A. James, Clerk, asks bids until June 19 to construct 11,000 sq. yds. sheet asphalt or other paving on concrete base, or concrete pavement, with curbing, gutters, etc.; Engr., Wm. M. Platt, Durham, N. C. (See Machinery Wanted-Paving.)

N. C., Greensboro-City will pave section of South Fulton St.; 8500 sq. yds. bitulithic pavement on 4-in. concrete foundation; 1500 sq. yds. 2-ft. concrete gutters; 1000 cu. yds. excavation; 6400 ft. 5x18-in. pointed granite curb; 300 ft. 5x18-in. pointed granite curb, circular; 580 sq. yds. street railway paving, single track, with concrete foundation and wearing surface; 60 ft. 24-in. terra-cotta storm sewer; 150 ft. 12-in. storm-water sewer, etc.; also resurface Fulton St. in Dist. No. 5; 15,000 sq. yds. bitulithic resurfacing over macadam; 400 lin. ft. 5x18-in. pointed granite curb; 4 cast-iron storm-water grates inlet; bids until June 14; Walter H. Woodson, Mayor; J. W. Webb, City Engr. (See Machinery Wanted-Paving, etc.)

N. C., Pembroke-City, E. M. Paul, Clerk, will issue \$2000 bonds to improve streets.

N. C., Salisbury-City, Walter H. Woodson, Mayor, issued \$75,000 bonds for paving streets.

Okla., Oklahoma City-Fairlawn Cemetery Association, Fred E. Suits, Prest., 509 Patterson Bldg., will construct system of drive-ways in Fairlawn Cemetery; bids until June 9; alternate bids on concrete pavement, sheet asphalt on concrete base, asphaltic concrete on concrete base, and watered and rolled gravel roadways. (See Machinery Wanted-Paving.)

S. C., Beaufort-City, H. G. Otis, City Mgr., let contract to Southern Clay Mfg. Co., Chattanooga, Tenn., at \$21,390 to construct 13,000 sq. yds. paving; vitrified brick pavement, gravel filler on sand-cement cushion or old macadam; H. R. Pollitzer, City Engr. (Bids noted in April.)

S. C., Charleston-City, J. H. Dingle, City Engr., opened bids May 29 for sheet-asphalt paving; \$40,000 available; Lawson Construction Co., Norfolk, Va., lowest bidders. (Bids noted in May.)

S. C., Greenville-Greenville County Highway Com. will expend \$30,000 to improve road between Greenville and cantonment site near Paris.

Tenn., Columbia-City, C. J. Akin, City Engr., let contract to Thompson & Graham to construct 50,000 sq. yds. asphaltic concrete; \$75,000 available. (Bids lately noted.)

Tenn., Mountain City-Johnson County will construct 36 mi. road; grading and macadamizing; bids until June 14; H. A. Donnelly, Secy. Pike Com. (See Machinery Wanted-Road Construction.)

Tenn., Nashville-Davidson County Commissioners appropriated \$9000 for road construction.

Tex., Giddings-Lee County, Dist. No. 1, John H. Tate, County Judge, will construct graded roads; \$150,000 (bonds) available; H. S. Wilder, Giddings, Engr. (Bonds lately noted voted.)

Va., Pulaski-Pulaski County Commrs. ordered vote August 23 on \$300,000 bonds to construct roads; \$175,000 on Jackson Ferry-Fancy Gap Rd. and \$125,000 on Carroll-Floyd Turnpike.

W. Va., Moundsville-City, O. B. Bonar, Clerk, let paving contract to R. J. McFadden, Moundsville; Alex. Purdy, Engr. (Bids noted in May.)

W. Va., Welch-McDowell County let contract to Carey Bros., Lexington, Ky., for 7 mi. (60,000 cu. yds.) grading.

W. Va., Wellsburg-Brooke County Court rejected bids received May 24 to construct 9.2 mi. brick, bituminous or asphaltic concrete; C. A. Elcheberger, County Road Engr. (Bids noted in May.)

W. Va., Williamson-Mingo County Commrs., Blake Taylor, County Rd. Engr., will expend \$300,000 this year on road construction; grading and draining roads, and hard-surfacing main roads; contracts to be let. (Lately noted voting \$1,000,000 bonds for road construction.)

SEWER CONSTRUCTION

Ark., Malvern-City, G. E. Matteson, Chrmn. Improvement Dist., will construct sewers, estimated cost \$63,000; J. B. McCrary Co., Atlanta, Ga., Engr. and Contr.; all materials purchased. (Lately noted to issue bonds.)

Ga., Macon-Bibb County Commrs. agreed to construct 1 or more trunk lines of sanitary sewers as outlet for system of camp sewers to be installed by Government in military camp or camps to be located at Holly Bluff; estimated cost \$3707 for each line.

Md., Mt. Rainier-City, Peter J. Hagan, Chk., let contract to Herman Stensrud, Marquette, Mich., to construct 10 mi. sewer and 10 mi. water system; cost \$55,000; Harry Stevens, Consult. Engr., Union Trust Bldg., Washington, D. C. (Bids noted in April.)

Okla., Ada-City voted \$25,000 additional sewer bonds; E. S. Ratliff, Mayor.

Okla., Rush Springs-City voted June 1 on \$25,000 bonds for sewer construction; Mackintosh-Walton Co., Engr. Address The Mayor.

Tenn., Jackson-City, Lawrence Taylor, Mayor, let contract to Municipal Engineering & Construction Co., Atlanta, Ga., at \$32,341, for 46,000 ft. sanitary sewers; 6, 8 and 12-in. pipe; John L. Williams, Engr. (Bids noted in May.)

Tex., Bryan-City will construct sewage-disposal plant and main sewer from city to plant; bids until June 8; John M. Lawrence, Mayor. (See Machinery Wanted-Sewer Construction.)

SHIPBUILDING PLANTS

D. C., Washington-General Ship Building Co., capital \$200,000, Incptd.; Fred S. Swindell, Prest., 205-09 Commercial National Bank Bldg.; Lieze F. Sasser, Secy.

Fla., Millville-Gulf Shipbuilding Co., H. H. Boyer, Prest., advises Manufacturers Record: Will establish shipyards; to what extent will build ships and what size has not been determined; capital stock \$50,000; shipyard, Millville; principal office, Panama City, Fla.; branch office, Pensacola, Fla. (Lately noted organized.)

Ga., Savannah-National Shipbuilding & Drydock Co. is not prepared to announce plant details; R. S. Salas, Prest. Standard Fuel Supply Co., advises Manufacturers Record: National corporation anticipates erecting largest shipbuilding plant in South. (Lately noted chartered with \$300,000 capital by R. S. Salas and others.)

Md., Baltimore-McClintic-Marshall Co., Pittsburgh, Pa., wires Manufacturers Record: Building 2 additional ways and construct shop building; shipyard at Fairfield, near Baltimore; now have 2 ways with steel barges on them.

Md., Sparrows Point-Bethlehem Steel Co., South Bethlehem, Pa., advises Manufacturers Record: Will build general copersmith shop for shipbuilding depart-

ment; 121x61-ft. extension to 121-ft. wide building; 60x90 ft. middle portion, 25 ft. deep to bottom of truss; two 60x30-ft. wing portions, 13 ft. floor to bottom of truss; concrete piles, foundations, floors and roof; steel columns, trusses, bracing and lintels, brick wall, steel sash, wire glass, steel rolling doors, slag roofing and sheet metal ventilators; install furnaces, copper pipe bending machines, hoists, etc.; Bethlehem Steel Co., Archt.; following contractors will estimate: Cowan Building Co., 106 W. Madison St.; B. F. Bennett Building Co., 123 S. Howard St.; Chas. L. Stockhausen Co., Marine National Bank Bldg.; Consolidated Engineering Co., Calvert Bldg.; Slinger-Pentz Co., Equitable Bldg.; West Construction Co., American Bldg.; J. Henry Miller, Inc., Eutaw and Franklin Sts.; Morrow Bros., 1201 Fidelity Bldg.; Irwin & Leighton, 809 Keyser Bldg., and Wm. Steele & Sons Co., all of Baltimore. (Lately noted to build copperworking addition for shipbuilding department of Penn-Mary Steel Co.)

Miss., Moss Point.—Terry Shipbuilding Co. (Edw. F. Terry and Geo. H. Britain) of New York will construct shipbuilding plant; facilities for construction 20 merchant cargo steamers of 3500 tons each; received Government contract.

Tex., Galveston.—Kane & Weaver organized by J. J. Kane and L. C. Weaver; establish plant to construct wooden ships; leased slip and 700x150-ft. water-front property for plant site; utilize marine ways previously built.

Tex., Houston.—Carter Lumber & Building Co. will construct shipbuilding plant; purchased site with 600-ft. frontage on ship channel.

Tex., Houston.—F. J. Glover, Louis Glover and J. J. Settegast, Jr. (Pres. of Houston Car Wheel Works), will establish shipbuilding plant.

Tex., Houston.—Midland Bridge Co., Kansas City, Mo., will build shipyards; has site with 1000-ft. frontage on deep-water channel.

Va., Portsmouth.—Government let contract Geo. E. Wyne, Munsey Bldg., Washington, D. C., at \$357,285 to erect foundry building at Norfolk Navy-yard. (Lately noted inviting bids.)

TELEPHONE SYSTEMS

N. C., Thomasville.—Thomasville Telephone Co. has plans by Frank A. Weston for exchange; cost \$7000.

Okl., Lima.—People's Telephone Co., capital \$5000, incptd. by J. K. Hubbard, R. G. Dunlap and G. V. Cross.

Tex., San Antonio.—Southwestern Telegraph & Telephone Co. will erect exchange at S. Presa and Grove Sts.; plans and specifications by Sanguinet & Staats on file with Mgr.

W. Va., Fairmont.—Hosiery.—Interwoven Hosiery Co., Martinsburg, W. Va., and New Brunswick, N. J., will build branch hosiery-knitting mill.

TEXTILE MILLS

N. C., High Point.—Cotton Yarn.—Moffitt Cotton Mill organized; H. A. Moffitt, Secy., Treas. and Gen. Mgr.; construct 235x90-ft. brick building; install 5000 spindles, etc., for daily capacity 2000 lbs. yarn.

N. C., Maiden.—Woolen Products.—Yadkin Woolen Mills organized; B. M. Spratt, Jr., Pres., Treas.; John R. Hagaman, V.-P.; G. F. Mauney, Secy.; operate 2 sets woolen machinery driven by water-power; all equipment purchased. (Lately noted incptd. with \$50,000 capital.)

N. C., Shelby.—Cotton Cloth.—John R. Dover (Secy., Treas. of Ella Mill), C. C. Cobb, C. C. Blanton and E. B. Hamrick will erect weaving shed; brick foundation; frame superstructure; 25x128 ft. with wing 20x40 ft.; 40 looms; weekly capacity, 10,000 lbs. cloth specialties; Southern Power Co., Charlotte, to furnish power; Mr. Cobb, Gen. Mgr., and Mr. Dover, Supt.

Tenn., Greenville.—Hosiery.—Loudon Hosiery Mills, Loudon, Tenn., will build 200x60 ft. mill of brick and timber construction with composition roofing, wood floor, steam-heating and electric-lighting equipment; W. H. Sears, Archt., 821 James Bldg., Chattanooga.

Va., Fieldale.—Marshall Field & Co., Chicago, have plans and specifications to develop 2000 acres of land for industrial city site, large textile mills, etc.; mill sites on hill surrounded by other hills, upon whose slopes will be built hundreds of dwellings for employees; Fieldale is on Norfolk & Western and Danville & Western railways, 4 mi. northwest of Martinsville, Va.; city improvements to include boulevards, avenues, streets, parks, churches, Y. M. C. A. build-

ing, playgrounds, electric-lighting plant, water-works, sewer system, etc.; development under management Geo. W. Fraker and E. D. Pitcher, both of Spray, N. C., Mr. Fraker being president of Carolina Cotton & Woolen Mills Co., controlled by Marshall Field & Co. (Marshall Field & Co. noted in May, under Martinsville, Va., as advising Manufacturers Record: Engineers laying out townsite, plans for mills being prepared, soon to begin building construction, etc.)

WATER-WORKS

Ark., Malvern.—City, G. E. Matteson, Chrmn. Improvement Dist., will construct water-works, Improvement Dist. No. 12; cost about \$75,000; J. B. McCrary Co., Atlanta, Ga., Engr. and Contr.; all materials purchased. (Lately noted to issue bonds.)

Ga., Atlanta.—Water-Works Dept., Zode Smith, Mgr., will construct system to furnish water to cantonment near Ben Hill; daily capacity 1,500,000 gals.; cost \$50,000 to \$60,000.

Ga., Macon.—Water Committee, C. T. Williamson, Chrmn., contemplates extension of water mains from East Macon to cantonments at Holly Bluff; estimated cost \$60,000 to \$75,000.

Ga., Savannah.—City is considering \$500,000 bond issue to rehabilitate water-works. E. R. Conant, Ch. Engr. Water Works.

Mo., Mt. Rainier.—City, Peter J. Hagan, Clk., let contract to Herman Stensrud, Marquette, Mich., to construct 10 mi. water and 10 mi. sewer system; cost \$85,000; Harry Stevens, Const. Engr., Union Trust Bldg., Washington, D. C. (Bids noted in April.)

Okl., Ada.—City voted \$60,000 bonds to improve water system; include construction reinforced concrete flume for water-power plant and 500,000-gal. elevated tank; Benham Engineering Co., Consult. Engr., Colcord Bldg., Oklahoma City; E. S. Ratliff, Mayor.

Okl., Altus.—City plans to build additional water reservoir. Address The Mayor.

Okl., Broken Bow.—City contemplates voting on bonds to construct water-works. Address The Mayor.

Okl., Picher.—Central Ice & Water Co., Alex. Cook, Mgr., will drill 1100-ft. well. (Lately noted incptd. with \$16,500 capital by John Comba and others.)

Okl., Red Fork.—City, W. E. Kerr, Clk., will construct plant, 86,000 gals. capacity; expend \$20,000; install gas engine; cost \$750; building cost \$500; cast-iron reservoir, cost \$1000, 1600 bbls. capacity; W. E. Davis, Tulsa, Okla., Engr. Noted in May. (See Machinery Wanted—Water-works Equipment.)

Okl., Rush Springs.—City voted \$30,000 bonds to construct water-works; Macintosh-Walton Co., Engr. Address The Mayor. (Lately noted.)

Okl., Wirt.—City is preparing plans to construct water-works. Address The Mayor.

Tenn., Lebanon.—City contemplates voting on \$50,000 bonds to improve water-works. Address The Mayor.

Tex., Abilene.—City voted to purchase water plant; adopted Elm Creek site for 5,000,000-gal. reservoir. Address City Com.

Tex., Fort Worth.—City will expend \$85,000 to build sediment tanks and aeration plant and to increase capacity of filtration system to 15,000,000 gals. F. J. Von Zuben, City Engr. (Previously noted.)

WOODWORKING PLANTS

Ark., Fayetteville.—Wm. Haas & Sons, Pine Bluff, Ark., will not establish factory in Fayetteville. (Recent report incorrect.)

Ga., Thomasville.—Kegs, etc.—Neel Bros. plan to develop short-leaf pine timber land; may install machinery to manufacture nail kegs, lime barrels, staves, etc. (See Machinery Wanted—Woodworking Equipment.)

La., Bogalusa.—Veneer and Boxes.—Chas. W. Ames of Crawfordsville, Ind., and others organized company to build veneer and box factory; purchased machinery; purchased 5800 acres hardwood timber lands in forks of Bogue Chitto and Pearl Rivers.

Tex., Dallas.—Coffins.—Dallas Coffin Co. will erect plant; 1 story; brick and concrete; cost \$4000.

Tex., Houston.—Furniture.—James Furniture Co., capital \$35,000, incptd. by J. W. James, C. H. Collins and C. H. Compton.

Va., Norfolk.—Veneer.—Norfolk Veneer Co. advises Manufacturers Record: Entire plant destroyed; engaged in details of adjustment; not in position to say whether will rebuild. (Lately noted burned.)

Va., Winchester.—Staves.—Forrest-Glen Orchard Co., G. F. Hetzer, Williamsport, Md., Prest., and Warren Rice, Secy.-Treas., will install sawmill and stave-mill machinery. Lately noted. (See Machinery Wanted—Saw and Stave-Mill Machinery.)

FIRE DAMAGE

Ala., Birmingham.—Sommer Tailoring Co.'s store, Julius Ellinger, Mgr., loss \$20,000; D. H. Blumberg Shoe Co.'s store, loss \$15,000.

Ark., De Queen.—Williams Building, occupied by Poindexter Wholesale Produce Co.

Ark., El Dorado.—Dr. H. H. Niehaus' residence, owned by R. E. Rowland, Little Rock; loss \$7000.

Ark., Holmes.—Dave Fenders' residence; loss \$4500.

Ark., Leslie.—Pellm Cooperage Co.'s boiler-room, blacksmith shop and dustroom; loss \$1000 to \$1500.

Fla., Alton.—Standard Lumber Co.'s dry kilns and lumber; loss \$40,000.

Fla., West Palm Beach.—Dwellings and packing-house owned by G. W. and W. E. Ruple, Cleveland, O.; loss \$6000 to \$8000.

Ga., Atlanta.—J. A. Samuel's bottling works at 253 Decatur St.

Ga., Atlanta.—J. K. Orr Shoe Co.'s building not burned in recent fire; late report incorrect.

Ga., Warehoro.—Warehouse, store and grist mill owned by J. T. Strickland, Waycross, Ga.; loss \$8000.

Ky., Dixon.—Dixon Flour Mill, owned by J. W. Stevens; loss \$3500; Henry Wick's blacksmith shop and other buildings.

Mo., Cambridge.—Sanitary Steam Laundry, loss \$10,000; J. Ben Brown's store and dwelling, loss \$4000; Cambridge Vulcanizing Co.'s plant; Liberty Mfg. Co.'s shirt factory.

Mo., Hagerstown.—Hagerstown Furniture Co.'s storage department of plant.

Mo., Rockville.—Russell E. Duvall's dwelling at Damascus; loss \$5000.

Miss., Bay St. Louis.—Chas. H. Robinson, Jr.'s residence, owned by R. R. Perkins Estate; loss \$5000.

Miss., Crawford.—Mr. Flournoy's residence, owned by estate of Mrs. Alice M. Smith; loss \$4000.

Mo., Mineral Point.—Mineral Point Milling Co.'s mill.

Mo., St. Louis.—Residence of Adolphus Busch III, V.-P. Anheuser-Busch Brewing Assn.; loss \$100,000.

N. C., Charlotte.—Presbyterian Hospital; Universal Film & Supply Co.'s building; Asten Furniture Co.'s store; loss \$50,000.

N. C., Concord.—Locke Cotton Mills Co.'s 6 dwellings.

N. C., High Point.—Edward Allen's residence.

N. C., Salisbury.—Frank N. McCubbin's dwelling.

N. C., Wilson.—W. L. Russell Box Co.'s plant; loss \$100,000.

Okl., Tulsa.—Tulsa Glass Co.'s plant; loss \$120,000.

S. C., Newberry.—Elijah B. Martin's residence in Floyd township; loss \$6000.

Tenn., Dyersburg.—Famous Dry Goods Store and adjoining building owned by Scott & King; loss \$11,000.

Tex., Childress.—Wolford House.

Tex., Claremont.—Mrs. J. M. Smith's ranchhouse, 7 mi. west of Claremont; loss \$6000.

Tex., Laredo.—Wormser Bros.' store; loss \$15,000.

Tex., Lafayette.—Methodist Church; loss \$3500. Address The Pastor.

Va., Orange.—R. Ogden Halsey's residence; loss \$15,000.

Va., Staunton.—Staunton Inn, owned by Thomas Cox, Richmond, Va.; loss \$5000.

W. Va., Logan.—Burley White's store and dwelling; loss \$16,000; Chesapeake & Ohio Ry. Co.'s toolhouse; F. I. Cabell, Chief Engr., Richmond, Va.; postoffice and other buildings.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Bradentown.—G. B. Wallace will erect store and apartment building. (See Stores.)

Fla., Miami.—Dade Investment Co. will erect apartment-house; cost \$30,000.

Fla., Miami.—Geo. Marshall will erect apartment-house; cost \$10,000.

Fla., Miami.—James H. Johnson has plans by Edw. A. Nolan, Miami, for apartment-house on 10th St. near Bay St.; concrete skeleton; hollow-tile curtain walls; 4-ply built-up roof; mill construction; electric lights; cost \$35,000; bids opened June 4. (Lately noted.)

Fla., St. Petersburg.—Dr. Carl M. Fink will remodel dwelling for sanitarium and apartment-house. (See Hospitals.)

Ga., Atlanta.—L. B. Saunders will erect apartment-house to replace structure damaged by fire; 123-ft. frontage; 3 stories; cost \$60,000 to \$70,000.

La., New Orleans.—T. J. Kelly will erect apartment-house; frame; 2 stories; 4 apartments; cost \$10,000 to \$12,000.

La., New Orleans.—O. P. Mohr, 210 Mahecha Bldg., is preparing plans for duplex apartment building; 32x74 ft.; 2 stories and basement; frame stucco; tile roof; wood floors; warm-air heat; electric lights; cost \$7000. (Lately noted.)

Mo., Kansas City.—Hoffman Bros. will erect 3-story 26-apartment flat; cost \$30,000.

Mo., Kansas City.—J. B. Robinson will erect 3-story 6-apartment flat; cost \$14,000.

Mo., Kansas City.—B. L. Deshaizer will erect 3-story 6-apartment flat; cost \$12,000.

Tenn., Memphis.—John Gaisford will erect 4 flats on Union Ave.; 2 stories; 4 apartments; 5 rooms each; 50x95 ft.; sleeping-porches; cost \$21,000.

W. Va., Keystone.—Charles Budnick will erect 3 store and apartment buildings. (See Stores.)

ASSOCIATION AND FRATERNAL

Okl., Buffalo.—I. O. O. F. will erect business and lodge building; 50x100 ft.; 2 stories; brick.

Tex., Clarendon.—Mrs. C. Adair, London, Eng., and Paloduro, Tex., will erect Y. M. C. A. building; 50x75 ft.; brick; rubberoid roof; wood and concrete floors; cost \$11,000 (turnkey job) exclusive of equipment; Anton F. Korn, Jr., Archt., Dallas. Address C. W. Taylor, Secy., Clarendon. (Lately noted.)

BANK AND OFFICE

Ga., Macon.—Macon Railway & Light Co. has plans by Curpan R. Ellis, Macon, for remodeling and extension of office building; will enlarge tile lobby, providing room for gas and electric appliances; cost \$6000 to \$8000.

La., New Orleans.—Dr. T. J. Dimitry will erect 2-story building; 2d floor for physicians' offices; ground floor for store, flower shop, etc.

Mo., Baltimore.—Harry B. Wolf, 204 Courtland St., will open bids in a few days to erect office building at 110-112 E. Lexington St.; 2 stories; colonial brick; marble trimming; cost \$40,000; contractors estimating are Clarence E. Stubbs, Equitable Bldg.; Fred Wright; Charles L. Stockhausen Co., Marine National Bank Bldg.; W. E. Burnham, Law Bldg.; all of Baltimore; Otto G. Simonson, Archt., Maryland Casualty Tower Bldg. (Previously noted.)

Mo., Alma.—Alma Bank has plans by Shepard & Belcher, Kansas City, Mo., for bank building; brown brick; concrete trim; 25x60 ft.; cost \$8000.

Mo., St. Louis.—American Trust Co. Broadway and Locust Sts., has plans by T. P. Barnett Co., 705 Olive St., St. Louis, for bank building; cost about \$250,000. (Lately noted.)

N. C., Greensboro.—American Exchange National Bank acquired Fish building and will alter or erect new building.

N. C., Monroe.—Savings Loan & Trust Co. will erect building; several stories; pressed brick and steel. (Previously noted.)

Okl., Tulsa.—Mid-Continental Petroleum Co. will erect proposed \$30,000 office building.

Tex., Comfort.—Arno Schwethelm will erect store and office building. (See Stores.)

Va., Hopewell.—Wright-Crutchfield Co.

Inc., will erect store and office building. (See Stores.)

Va., Lynchburg.—Glamorgan Pipe & Foundry Co. will erect office building; brick; 2 stories; 40x80 ft.

CHURCHES

Ark., Hope.—Methodist Church, Steve Carrigan, Chrmn. Building Com., receives bids until June 10 to erect building; Witt-Siebert & Co., Archts., Texarkana, Tex. (Previously noted.)

Fla., Hastings.—Methodist Episcopal Church will erect parsonage; I. C. Peck, Chrmn. Building Com.

Ga., Waycross.—Central Baptist Tabernacle, Rev. B. Lacy Hoge, pastor, will open bids within 30 days to erect Sunday-school building; 2 stories; brick; cost about \$6000; details not decided; architect not selected. (Lately noted.)

Ky., Winchester.—Methodist Episcopal Church South, Geo. E. Tomlinson, Chrmn., has plans by John Gaisford, 408 Goodwyn Institute, Memphis, Tenn., for building; Sunday-school 40x76 ft.; auditorium 90x88 ft.; brick veneer; stone facing; tile roof; wood floors; cost about \$40,000; bids opened June 12. Address bids to Mr. Tomlinson, Winchester, and file copy with architect. (Lately noted.)

Md., Baltimore.—Twenty-fifth Street Christian Church, Rev. B. H. Melton, pastor, 407 Bretton Pl., Guilford, Baltimore, has plans by M. R. Rhoads, Chambersburg, Pa., for building; Port Deposit granite; Bible school to accommodate 1000; church proper, 600; 22 classrooms; cost \$50,000; construction under supervision of building committee, of which the pastor is chairman. (Previously noted.)

Md., Cumberland.—St. Paul's Lutheran Church will expend \$7000 for improvements to include pipe organ, porch on parsonage, carpets, lighting system, etc., in church. Address The Pastor.

Tenn., Lebanon.—Lebanon Cumberland Presbyterian Church will remodel structure to replace building damaged by storm. Address The Pastor.

Va., Berkeley (Station Norfolk).—Liberty Street M. E. Church, Rev. T. J. C. Heath, pastor, will erect building; brick; cost \$12,000 to \$15,000.

Va., Suffolk.—Christian Church, Rev. S. R. Harrell, Pastor, is having plans prepared by B. F. Mitchell, Norfolk, for building; 62x34 ft.; brick; probably slate roof; wood floors; hot-air heat; electric lights (in contract); plans not yet ready for contractors. (Lately noted.)

CITY AND COUNTY

D. C., Blue Plains—Home.—Secretary of Board of Commrs., Room 509, District Bldg., Washington, D. C., receives bids until June 15 to construct Women's Ward at Home for the Aged and Infirm; blank forms, plans, specifications, etc., at office Chief Clerk, Engr. Dept., Room 427, District Bldg., Washington; Oliver P. Newman, Louis Brownlow, C. W. Kutz, Commrs.

D. C., Washington.—Police Station.—Secretary of Board of Commrs., Room 509, District Bldg., Washington, D. C., receives bids until June 15 for alterations and cell work at Police Station No. 2, at 5th St. N. W., between M and N Sts.; blank forms, plans, specifications, etc., at office Chief Clerk, Engr. Dept., Room 427, District Bldg., Washington; Oliver P. Newman, Louis Brownlow, C. W. Kutz, Commrs.

Md., Baltimore.—Market.—Board of Awards, John Hubert, Acting President, City Hall, will alter shed enclosure at Richmond Market; J. J. Byrne, Inspector of Buildings.

Okla., Lehigh.—City Hall and Jail.—City has plans by W. H. Sparger, Lehigh, for city hall and jail; 25x80 ft.; 2 stories; cement and wood floors; cost \$4000; bids opened June 7. Address W. L. Steelman, Lehigh.

S. C., Laurens.—Jail.—Laurens County Board of Commrs., H. B. Humbert, Chrmn., will supervise construction of jail; cost about \$30,000. (Previously noted.)

Va., Newport News.—Market.—Municipal Industrial Commrs. receive bids until June 7 at City Clerk's office to erect market building at Jefferson Ave. and 12th St., near head of Small Boat Harbor; frame; 20x110.6 ft.; felt roof; concrete floors; electric lights from local plant; cost \$3500; plans and specifications at office T. E. Pearce, City Engr. (Lately noted.)

W. Va., Charleston.—Jail.—Jefferson County, Charles A. Johnson, Clerk, receives bids until June 14 to erect 2-story and

cellar brick jail; plans by A. B. Mullett & Co., Union Trust Bldg., Washington, D. C., call for 2 stories; probably red-brick front; stone trim; jail section; fireproof. (Lately noted.)

COURTHOUSES

Ala., Jasper.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opened bids to erect courthouse and postoffice. (See Government and State.)

DWELLINGS

Ala., Birmingham.—W. H. Woolverton will erect residence; brick veneer; cost \$5000.

Ala., Birmingham.—Henry H. Cobb will erect brick-veneer residence; cost \$7500.

Ark., Little Rock.—N. J. Allen will erect 2 residences; 1 and 2 stories; cost \$3000.

D. C., Washington.—Clarence W. Doan, 319 17th St. N. E., will erect tile dwelling, 3338 Stephenson Pl. N. W.; cost \$5000.

D. C., Washington.—Bronson C. Doan, 514 17th St. N. W., will erect tile dwelling, 5914 Branch Rd.; cost \$5000.

D. C., Washington.—H. R. Howenstein Co., 1314 F St. N. W., will erect 7 dwellings, 1145-57 Mose St. N. E.; 6 rooms; front and rear porches; hot-water heat; electric lights; cost \$14,000; W. E. Howser, Archt.

D. C., Washington.—Thos. A. Jameson, 61 New York Ave. N. W., has plans by W. E. Howser for brick residence, 638 Massachusetts Ave.; cost \$4000.

D. C., Washington.—Thrift Building Co., 709 Union Trust Bldg., has plans by Geo. T. Santmyers, 921½ New York Ave. N. W., Washington, for 8 dwellings, 1318-32 Quincy St. N. W.; brick; 2 baths; oak floors; cost \$18,000.

Fla., Jacksonville.—D. S. Fletcher will erect brick-veneer dwelling; cost \$5500.

Fla., Jacksonville.—G. M. Boyd Co. will erect 2-story frame dwelling; cost \$4400.

Fla., Miami.—Carl Holmer will erect residence; cost \$7000.

Fla., Miami.—C. J. Martin will erect 2 residences; cost \$8000.

Fla., Miami.—J. McCarty will erect \$6000 residence.

Fla., Miami.—Charles Briggs, Boston, Mass., is having plans prepared by Gordon Mayer, Miami, for residence; Old English style; 4 stories; rock foundation; dining-room with heavy timber roof, feature window 16 ft. high; living-room with carved stone fireplace, French doors opening into sunroom and open brick floored terrace; first floor hall, stairway, den, living and dining-rooms finished in paneling and plastic ornamental work; tile-finished kitchen, pantry and breakfast-room; refrigerating plant, linen chutes, incinerator, vacuum cleaner, inter-communicating telephones, hot-air heat; tile baths for each bedroom; tower-room 16x16 ft.; garage to accommodate 3 cars; 64x24 ft.; equipped with laundry, water-tanks, 3 bedrooms, kitchenette, etc.; power pump; pressure storage tank; grounds and entrances lighted by electric lights in permanent underground system; Permit water-softener system; total cost about \$75,000.

Fla., Pensacola.—F. C. Chaffin has plans by Walker D. Willis, Pensacola, Fla., for residence; cost \$7000.

Fla., Starke.—W. N. Murdaugh will erect bungalow on City Hotel site; 1 story; 8 rooms and bath.

Fla., St. Petersburg.—Al. W. Fisher will erect 9-room residence; cost \$3500.

Fla., St. Petersburg.—C. Durant will erect 2-story residence.

Fla., St. Petersburg.—H. L. Conley will erect \$4500 residence; 2 stories; 40x100 ft.; Ferdon & Feltham, Archts., St. Petersburg.

Ga., Atlanta.—J. T. Evans, agent, will erect frame dwelling on Greenwood Ave.; cost \$3000.

Ga., Augusta.—E. A. Frank has plans by J. B. Story, 212 Montgomery Bldg., Augusta, for residence; wood; slate-surfaced shingle roof; wood joist floor construction; hot-air heat; electric lights; cost \$4500; bids opened June 10. Address architect. (Lately noted.)

Ga., Doerun.—John McPhaul will erect bungalow; furnace heat; composition shingle roof; cost \$6000; T. M. Campbell, Archt., Johnson Bldg., Augusta.

Ky., Louisville.—Basil Richardson is having plans prepared by Thos. J. Nolan, 319 Courier-Journal Bldg., Louisville, for residence; brick veneer on frame; tile roof; hot-water heat; plumbing; electric wiring; hardwood floors; 2½ stories; 14 rooms; architect receives bids.

Md., Baltimore.—M. E. Merrick, 2907 Parkwood Ave., will erect 3-story cottage on Joppa Rd., near Charles St.

Md., Baltimore.—E. J. Gallagher Realty Co., 919-20 Munsey Bldg., will erect eighteen 2-story dwellings; 8 on west side of Collington Ave., north of Oliver St.; 10 on Oliver St., between Collington Ave. and Chester St.; brick; cost about \$45,000; also 18 dwellings on north side El Mora Ave., east of Belair Rd., at cost of \$36,000, and another block on south and north sides of Ravenswood Ave., east of Belair Rd., at cost of \$60,000; 2 stories; 14x45 ft.; brick.

Md., St. Helena.—Eastern Land Co. lets contract June 11 for 500 dwellings for employees of Bethlehem Steel Co.; 2 and 2½ stories; brick and hollow tile; tile roofs; cost approximately \$1,500,000; Edward H. Palmer, Jr., Archt., Munsey Bldg., Baltimore. (Lately noted.)

Miss., Indianola.—W. B. Gresham has plans by Regan & Weller, Memphis, Tenn., for residence; 2 stories; brick and stone; cost \$10,000.

Mo., Kansas City.—L. T. Crutcher, Prest. L. T. Crutcher Warehouse Co., will erect residence; Italian renaissance type.

Mo., Kansas City.—James S. Agee will erect 20 dwellings on Lawn and Elmwood Aves., Burge Park.

Mo., Kansas City.—A. J. King Realty Co., 12 E. 9th St., has plans by G. F. Green, 424 Rialto Bldg., Kansas City, for dwellings at 5601 and 5643 Oak St.; former stucco, with shingle roof; latter stone, with composition roof; hardwood floors; vacuum steam heat; electric lights; cost \$8000 and \$10,000, respectively; construction by owners, who may be addressed.

Mo., Kansas City.—Dr. W. F. Evans will erect dwelling; 2 stories; stucco; cost \$4500.

Mo., Kansas City.—Louise Gessner will erect 2-story stucco and brick dwelling; cost \$3500.

N. C., Monroe.—Fred. Ezzell will erect dwelling on farm 1 mi. north of Monroe.

Okla., Bristow.—R. L. Jones will erect dwelling on farm near Bristow; city water; electric lights and gas fixtures; cost \$6000.

Okla., Oklahoma City.—Workman, Jones & Co. will erect \$4000 dwelling.

Okla., Oklahoma City.—C. H. Erwin will erect 2 dwellings; cost \$4500.

Okla., Oklahoma City.—R. H. Gardner will erect 2-story brick-veneer residence; cost \$4000.

Okla., Oklahoma City.—Stewart & Wilderson will erect 4 dwellings in 700 block W. 20th St.; 2 stories; frame; 2-story stucco dwelling in 600 block W. 14th St.; 2-story brick-veneer dwelling in 300 block W. 16th St.; cost \$42,000.

Okla., Oklahoma City.—E. N. Redman will erect 7 dwellings; 1 story; frame; cost \$16,000.

Okla., Oklahoma City.—C. E. Huffman will erect 6 residences; 1 story; frame; cost \$16,625.

Okla., Tulsa.—E. B. Hustin will erect residence; 2 stories; frame; cost \$7000.

Okla., Tulsa.—E. E. Clulon will erect 2-story frame residence; cost \$3000.

Okla., Tulsa.—E. M. Arnold will erect 2-story frame residence; cost \$9000.

Okla., Tulsa.—H. P. Leavitt will erect residence; 1 story; frame; cost \$3200.

Okla., Tulsa.—C. P. Elliot will erect residence; 1 story; frame; cost \$3000.

Okla., Tulsa.—J. M. Stekoll will erect residence; 1 story; frame; cost \$3000.

Okla., Tulsa.—Prentice Moore will erect 2-story frame dwelling; cost \$9000.

Okla., Tulsa.—Tate Floyd will erect 1-story frame residence; cost \$3000.

Okla., Tulsa.—W. V. Bidderson will erect 2-story frame dwelling; cost \$10,000.

S. C., Edgefield.—W. A. Strom has plans by T. M. Campbell, Johnson Bldg., Augusta, for 1-story brick bungalow; cypress shingle roof; cost \$5000.

Tenn., Memphis.—G. L. Cronkrite has plans by Regan & Weller, Memphis, for residence; 2 stories; stucco; cost \$15,000.

Tenn., Memphis.—W. J. Norris will erect 2-story stucco residence; cost \$10,000; Regan & Weller, Archts., Memphis.

Tenn., Nashville.—H. H. Phelps will erect dwelling to replace structure lately noted damaged by fire; about 6 rooms and basement; frame or brick veneer; composition roof; hardwood floors; furnace heat; bids opened June 15 to 30; wants plans for 6-room bungalow; cost about \$3000.

Tex., Dallas.—E. L. Rice will erect 10-room 2-story frame dwelling; cost \$3250.

Tex., Houston.—W. C. Hardcastle will erect \$3000 9-room residence.

Tex., Houston.—Houston Land Corporation will erect 2-story residence; cost \$5300.

Tex., Tyler.—J. H. Bothwell, Archt., Tyler, receives bids until June 6 to erect 2-story brick-veneer residence.

Va., Lynchburg.—J. H. Cave will erect 2 frame and metal dwellings; cost \$3000.

Va., Richmond.—Virginia Realty & Construction Co. will erect brick dwelling on Kensington Ave.; cost \$12,500.

Va., Richmond.—Max E. Ruehrmond will erect two 2-story brick dwellings at 1109 St. Paul St. and on Hickory St.; cost \$6000.

GOVERNMENT AND STATE

Ala., Jasper.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opened bids to erect postoffice and courthouse; Algernon Blair, Montgomery, Ala., low bidder at \$94,159 for limestone construction. (Previously noted.)

Ark., Prescott.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opens bids June 28 to erect postoffice; plans and specifications from custodian of site at Prescott and Mr. Wetmore, Washington. (Lately noted.)

Fla., Pensacola.—Mine Storage.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., receives bids until June 25 to erect mine-storage building. (See Va., St. Juliens Creek.) Also receives bids until June 18 to erect 1 torpedo storehouse and 2 magazine buildings at Navy Aeronautic Station; concrete foundations and floors; hollow-tile walls; plastered outside; plastered tile partitions; steel roof trusses and columns; asbestos on wood sheathing; drawings and specifications (No. 2354) on application to Bureau or commandant at naval station, Pensacola.

Ga., Macon.—Cantonment.—Quartermaster-General's Dept. will erect 3000 to 4000 buildings for 2 army division camps at Holly Bluff; will also erect 2 base hospitals; each to accommodate 1200; Col. W. B. Laude, U. S. Army Engr., Col. I. W. Lipell, Washington, D. C., in general charge.

Mo., Butler.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opens bids June 22 to erect postoffice; drawings and specifications from custodian of site, Butler, and Mr. Wetmore, Washington.

N. C., Wash Woods.—Coast Guard Station. Navy Dept. at U. S. Coast Guard Headquarters, Washington, D. C., opens bids June 16 to erect coast guard station No. 166 and accessories; blank proposals, specifications and other information on application to Supt. Seventh Dist. U. S. Coast Guard, Elizabeth City, N. C.; keeper, U. S. Coast Guard Station No. 166, Deals, N. C., or U. S. Coast Guard Headquarters. E. P. Berthoff, Capt. Commandant.

S. C., Greenville.—Cantonment.—Quartermaster-General's Dept. will erect buildings for divisional training camp to accommodate about 22,000 soldiers; J. E. Sirls, Engr., Greenville; Col. I. W. Lipell in general charge.

S. C., Port Royal.—Officers' Quarters.—Bureau of Yards and Docks, Navy Dept., F. R. Harris, Chief, Washington, receives bids until June 25 to erect 8 wood frame officers' quarters on concrete piers; exterior walls covered with drop siding; interior walls and ceilings covered with wall boards; shingle roof; electric lighting, plumbing and sewer system at Marine Recruiting Station; drawings and specifications (No. 2406) from Commandant of station named and from Bureau.

Tenn., Athens.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., rejected bids to erect postoffice. (Lately noted.)

Va., St. Juliens Creek.—Mine Storage.—Bureau of Yards and Docks, Navy Dept., F. R. Harris, Chief, Washington, D. C., receives bids until June 25 to erect 15 mine-storage buildings at following naval ammunition depots: St. Juliens Creek, 6; Newport, R. I., 3; Hingham, Mass., 2; Iona Island, N. Y., 2; Pensacola, Fla., 1; Guantanamo, Cuba, 1; steel frame; concrete floorings; concrete base course and floor and platform; hollow terra-cotta tile walls; built-up roofing over concrete slab; steel tracks and girders; drawings and specifications (2355) on application to Bureau or commandant at navy-yard on east coast.

HOSPITALS, SANITARIUMS, ETC.

Ala., Ensley.—Tennessee Coal, Iron & Railroad Co., Geo. Gordon Crawford, Pres., Birmingham, will erect hospital at Flint Ridge between Ensley and Fairfield; main building and 2 wings; cost \$125,000; Gustave W. Drach, Archt., Union Trust Bldg., Cincinnati. Mr. Crawford wires Manufacturers Record: "Building of brick construction; 23 ft. from wing to wing; 3 stories and basement."

Fla., St. Augustine.—Fingler Hospital Trustees receive bids until June 23 to erect hospital; 3 stories; fireproof; brick and concrete; stucco finish; Spanish style; red tile roof; two 2-story and one 1-story wings; hot-water heating plant in detached building; porches on 3 sides; solariums, enclosed porches, etc.; silent call system, electric elevators; dumb waiters; cement, tile and other fireproof flooring; Fred. A. Henderich, Archt., St. Augustine. (Previously noted.)

Fla., St. Petersburg.—Dr. Carl M. Fink will remodel dwelling for sanitarium and apartment-house; convert 2d floor of 10 rooms into flats of 2 rooms and bath; 1st floor for sanitarium; cost several thousand dollars.

Ga., Macon.—Quartermaster-General's Dept. will erect 2 base hospitals at Holly Bluff. (See Government and State.)

Tenn., Nashville.—Hospital of Davidson County has plans by Edw. E. Dougherty and Thos. W. Gardner, 728 Stahlman Bldg., Nashville, for remodeling interior of 1-story frame building and erecting frame extension, portion to be 2 stories; also install plumbing, heating and electrical work; Saml. G. Douglas, John Coode and Finley M. Dorris, Com.; bids opened June 5.

HOTELS

Fla., Fort Pierce.—New Fort Pierce Hotel Co. will move present hotel to site on seawall addition, remodel, brick veneer, and use as annex to building under construction.

Fla., Miami.—B. F. Davis will erect hotel; cost \$10,000.

Ga., Atlanta.—Hugh Richardson is having plans prepared by H. K. Chapman, Atlanta, for 9-story hotel; tile and concrete; fireproof; cost \$150,000 to \$200,000. Mr. Chapman wires Manufacturers Record: "Information premature; details not ready."

Ky., Glasgow.—Baird & Richardson are having plans prepared by and will receive bids through Thos. J. Nolan, 330 Courier-Journal Bldg., Louisville, for New Murrell Hotel; 4 stories; brick; wood and tile floors; composition roof; steam heating plant; plumbing; electric wiring; plain concrete.

Md., Baltimore.—Chas. H. Consolvo, Prop., Monticello Hotel, Norfolk, Va., and others are reported negotiating for site at Charles and Chase Sts. for erection of hotel; 500 rooms.

Va., Danville.—E. C. Arey is reported to erect addition to Leeland Hotel; 200 rooms.

MISCELLANEOUS

N. C., Shelby.—Welfare Building.—Ella Cotton Mill will erect welfare building for operatives; provide with gymnasium, reading-room, shower baths, auditorium, domestic science department, etc.; brick foundation; frame construction.

Tenn., Lebanon.—Clubhouse.—Green Brier Lake Automobile and Country Club will erect clubhouse; reception hall, 40x60 ft.; hardwood floors.

Tex., Houston.—Clubhouse.—Thalian Club plans to erect clubhouse; 7 stories; exterior limestone and brick; renaissance style; Pompeian style swimming pool, 24x75 ft., lined with enamel brick; surrounding room lined with same material; locker-rooms, shower baths, etc.; open loggia in front of general clubroom, 12x58 ft., with stone columns and arches and marble and tile floors; bedrooms on several floors, each with private baths, intercommunicating phones, etc.; top floor for ballroom and banquet hall with dining-room space on either side, separated from main dining-room by glass partitions; roof garden with pergolas, main kitchen, tile floors, etc.; basement for heating plant, vacuum-cleaning system, refrigerating plant, elevator machinery, electrical filtration plant; club wires Manufacturers Record: "Endress & Watkins, Archts., Houston; other information not ready for publication."

W. Va., Huntington.—Orphanage.—West Virginia Orphans' Home, J. L. Hill, Supt., plans to erect addition to building.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Titusville.—Florida East Coast Ry., E. Ben Carter, Ch. Engr., St. Augustine, Fla., will erect passenger station; cost not less than \$50,000.

Ga., Vineville.—Central of Georgia Ry., C. K. Lawrence, Chief Engr., Savannah, will erect passenger station.

Mo., Kansas City.—Interurban Central Station Co., Howard E. Huseilton, financial agent, Waldheim Bldg., has franchise for interurban union passenger terminal station at 10th and McGee Sts.; site and building to cost about \$2,000,000; approximately 208x132 ft.; fireproof; 6 stories, with construction to permit erecting 4 additional stories. (Previously noted.)

Okl., Tulsa.—St. Louis & San Francisco Ry., F. G. Jonah, Chief Engr., St. Louis, will expend \$100,000 for extension to freight depot; also \$25,000 to \$30,000 for additional tracks.

Va., Chatham.—Southern Rwy. Co., B. Herman, Sh. Engr., M. W. & S. Lines East, Charlotte, N. C., will erect brick station.

Va., Norfolk.—Chesapeake & Ohio Ry. Co. opened bids to erect three 1-story warehouses at foot of Tazewell St.; 164x72 ft., 80x112 ft. and 64x192 ft.; galvanized sides; composition roof; wood floors; W. T. Gregory, Norfolk, is low bidder; B. F. Mitchell, Archt., Norfolk. (Lately noted.)

SCHOOLS

Ala., Avondale.—See Ala., Birmingham.

Ala., Birmingham.—Board of Education will have plans prepared for schools at Avondale, Wylam and Ensley and high school in eastern section of city; estimated cost \$250,000; Wm. B. Ittner, Supervising Archt., Board of Education Bldg., St. Louis. (Previously noted.)

Ala., Ensley.—See Ala., Birmingham.

Ala., Wylam.—See Ala., Birmingham.

Ark., Argenta.—Shorter College will rebuild boys' dormitory lately noted damaged by fire; 3 stories; brick; cost \$30,000.

Ark., Batesville.—Arkansas College will erect boys' dormitory; cost \$40,000. (Lately noted.)

Ark., Bentonville.—New Home, Central, Fairview and Shady Grove School Dist. will erect school buildings. Address Dist. School Trustees.

Ark., Central.—See Ark., Bentonville.

Ark., Fairview.—See Ark., Bentonville.

Ark., Magnolia.—School Board will erect 2-story school building; brick; tile roof; wood floors; electric lights; cost \$50,000; steam heat, \$5000; bids opened July 1. Address W. H. Warnock. (Lately noted.)

D. C., Washington.—Board of Comms. opened bids to erect addition to toilet facilities at Bennington School No. 48, Minnesota Ave., near Bennington Rd.; Skinner & Garrett, 1416 F St. N. W., Washington, only bidder at \$8395. (Lately noted.)

Fla., Homestead.—Homestead Special Tax School Dist. No. 9 will issue \$10,000 school bonds; R. E. Hall, Secy. Board of Public Instruction, Miami, Fla.

Fla., Miami.—Miami Special Tax School Dist. voted \$150,000 bonds to erect ward school, refund \$50,000 debt, additions to Buena Vista, Riverside and Highland Parks Schools, etc.; R. E. Hall, Supt. County Board of Public Instruction. (Lately noted.)

Ga., Jackson.—Board of Education, J. H. Horn, Pres., has plans by J. F. Leitner, Healey Bldg., Atlanta, for high school and receives bids until about June 20; 110x98 ft.; ordinary construction; built-up pitch and gravel roof; fan system warm-air heat; cost \$21,000. Address J. T. Moore, Mayor, and Mr. Horn, both of Jackson, and Mr. Leitner, Archt. (Previously noted.)

Ky., Buckner.—Oldham County Board of Education, J. W. Selph, Chrmn., Lagrange, Ky., receives bids until June 9 to erect 4-room school building; brick and frame; tile roof; wood floors; 45x60 ft.; plans and specifications at office Thomas J. Nolan, 310 Courier-Journal Bldg., Louisville, and Mr. Selph, as above. (Lately noted.)

La., Alexandria.—Rapides Parish School Board, D. B. Showalter, Supt., Courthouse, Alexandria, receives bids until June 8 to erect following school buildings: Two-room frame buildings at Flatwoods, Walnut Grove and St. Clair; 1-room frame buildings at Hard Times, Dixie and Big Hammock; plans and specifications at office Herman J. Duncan, Archt., 6 Medical Bldg., Alexandria, and Supt. as above. (Previously noted.)

La., Kaplan.—Kaplan School District voted \$20,000 bonds to erect school building.

Address Vermillion Parish School Board, Abbeville, La. (Lately noted.)

La., Port Allen.—School Dist. No. 2, West Baton Rouge Parish, voted \$10,000 bonds to erect school in Port Allen.

La., New Orleans.—Tulane University, Stadium Com., will soon call for bids to erect 2 sections of stadium, with option of building third section on basis of bids submitted; plans by Frank G. Churchill, New Orleans, for first unit call for structure 183x61.2x35.10 ft.; stuccoed; fireproof; concrete columns; hollow tile and plaster walls; 3000 seats of cypress finish secured to concrete tiers; corridors full length of stand; ultimate plans call for stadium to seat 20,000. (Previously noted.)

Md., Baltimore.—Board of Awards opened bids to erect 24-room addition to school building No. 47, Linwood and Eastern Aves.; J. L. Robinson Construction Co., 63 Knickerbocker Bldg., Baltimore, low bidder for general contract at \$124,900, and Enterprise Steam & Hot Water Heating Co., 600 N. Howard St., Baltimore, low bidder for mechanical equipment at \$43,594. (Lately noted.)

Miss., Biloxi.—City is having plans prepared by E. A. Nolan, New Orleans, for addition to Central High School; 6 rooms; cost \$17,000. (Lately noted.)

Miss., Hermanville.—Hermanville Consolidated School Trustees will erect high school; 58x76 ft.; 2 stories; brick; composition roof; wood floors; Smith or similar heating system; acetylene lighting; cost \$5500; bids opened about July 1. Address Dr. E. P. Jones. (Lately noted to have voted \$12,000 bonds.)

Miss., Meridian.—City votes June 29 on \$10,000 bonds for school repairs. Address The Mayor. (Lately noted.)

Miss., Summit.—Pike County voted \$30,000 bonds to establish agricultural high school at Godbold's Mineral Wells. Address Chas. E. Brumfield, Commr., Magnolia, Miss. (Lately noted.)

Mo., Hayti.—Hayti School District voted \$10,000 bonds to purchase building and remodel for high school. Address Dist. School Trustees.

Mo., Boonville.—Kemper Military School is having plans prepared by T. W. West, Citizens National Bank Bldg., Sedalia, Mo., for school; 4 stories; 130x130 ft.; cost about \$100,000.

Mo., Jefferson City.—Carson-Newman College Trustees plan to erect administration building, science hall and library; cost about \$125,000.

Mo., Kansas City.—Kansas City School Dist. voted \$2,000,000 bonds to purchase sites, erect and repair schools, etc. Hale H. Cook, Pres. Board of Education. (Previously noted.)

N. C., Burgaw.—School Committee has plans by H. E. Bonitz, Wilmington, N. C., for school auditorium and alterations to present building; new structure, brick; tin shingle roof; gum flooring; steam heat; electric lights; cost \$3000; convert present auditorium into 3 schoolrooms; bids opened June 8. Address architect.

N. C., Concord.—State Building Commission will erect dairy barn at Stonewall Jackson Training School. (See N. C., Raleigh.)

N. C., Raleigh.—State Building Commission authorized heating and water plants and repairs at State University; repairs at East Carolina Teachers' Training School and dairy barn at Stonewall Jackson Training School at Concord.

N. C., Raleigh.—St. Augustine School Trustees will erect 2-story brick residence; cost \$3750.

N. C., Shelby.—Board of Education indefinitely postponed erection of addition to public-school building, for which \$15,000 bonds were voted. (Lately noted.)

N. C., Wendell.—Wendell Graded School Dist. voted \$20,000 school bonds; D. F. Giles, Supt. of Education, Raleigh.

Okl., Commerce.—City will soon vote on \$10,000 bonds to erect addition to school building. Address The Mayor.

Okl., Stillwater.—Oklahoma State Board of Agriculture, Oklahoma City, has plans by F. W. Redlick, Dept. of Agriculture, Oklahoma Agricultural and Mechanical College, Stillwater, for lately-noted science hall and gymnasium-armory building; former 80x110 ft., latter 80x220 ft.; fireproof; reinforced concrete; composition and tile or slate roofs; reinforced concrete floor construction; vacuum steam heat; lighting from college plant; cost \$100,000 each; bids opened in fall. (See Machinery Wanted—Engines; Building Materials; Electrical Equipment.)

S. C., Anderson.—Anderson School Dist. Board of Trustees approved plans by Jas. J. Baldwin, Anderson, for high school, for which \$80,000 bonds were voted; will soon call bids. (Previously noted.)

Tenn., Chattanooga.—E. D. Herron, Commissioner Dept. Public Utilities, Grounds and Buildings, receives bids until June 19 to erect following additional rooms to schools: Oak Grove School, 4 rooms; E. R. Phillips, Archt., Chattanooga; Chestnut Street School, 2 rooms, Deacon & Alger, Archts., Chattanooga; Chattanooga Avenue School, 2 rooms; ordinary brick; Carey roof; wood floors; steam heat (addition); cost \$6000; W. L. Campbell, Archt., Chattanooga; plans ready June 11 and obtainable from above-named architects. (Lately noted to expend \$27,000 for this work.)

Tenn., Knoxville.—School Board, W. B. Cobb, Chrmn., will erect 2 grammar-school buildings; one, 2-room, to be known as West Emory; other, 1-room, to be known as Concord school; L. C. Waters, Archt., Knoxville; bids opened June 5; City Commission also opens bids June 8 to erect addition to Van Gilder School; plans and specifications at office R. F. Graf & Sons, Archts., Knoxville.

Tenn., Memphis.—Bolton College, Board of Trustees, will issue \$150,000 bonds for improvements; initial buildings to be dormitories to accommodate 300 students.

Tenn., Sevierville.—Sevier County voted \$20,000, to be supplemented by \$10,000 now in hand, to erect high school; T. C. Drinnen, Chrmn. High School Board. (Previously noted.)

Tenn., Humboldt.—School Board has plans by McGee & Lester, Memphis, for high school; 2 stories and basement; brick; 165x110 ft.; slate roof; joist floors; cost \$25,000. (Previously noted.)

Tex., Austin.—State has plans by Atlee B. Ayres, 626 Bedell Bldg., San Antonio, to erect 5 fireproof and 2 frame buildings at State School for the Blind, to include kindergarten building, employees' cottage, garage, hospital, bookkeeper's and accountant's cottage, farmer's house, frame barn; tar and gravel roof; cement-finish floors in fireproof buildings; wood floors in frame buildings; bids opened June 18. Address James E. Ferguson, Governor. (Lately noted.)

Tex., Clarksville.—Clarksville School Board, B. F. Marable, Secy., opens bids June 7 to erect high school; 60x100 ft.; 2 stories and basement; brick, stone and concrete; composition roof; wood joist and edge-grain pine floor construction; low-pressure gravity steam heat; cost \$40,000; construction begins June 15; Sanguinet & Staats, Archts., Fort Worth. Address Mr. Marable, Clarksville. (Lately noted.)

Tex., Clint.—Clint School Dist. votes June 8 on \$15,000 school bonds. J. A. Fields and others, Com. (Previously noted.)

Tex., College Station.—Board of Directors, Agricultural and Mechanical College, opens bids June 12 to erect fireproof dormitory; plans and specifications at office Department of Architecture, College Station.

Tex., Corsicana.—City plans election on \$250,000 school bonds. Address The Mayor.

Tex., Hutto.—School Board will erect 2-story and substory brick, tile and concrete school building; cost \$20,000; C. H. Leinbach, Archt., 1105 Southwestern Life Bldg., Dallas; bids opened June 1. (Lately noted.)

Tex., Humble.—J. W. Lyle, County Supt. of Education, Houston, receives bids until June 18 to erect 2-story brick and 1-story stucco schools; plans and specifications at office O. F. Holcombe Co., Archts., 814 Stewart Bldg., Houston. (Lately noted.)

Tex., Kirbyville.—School Board approved plans by F. W. Steinman, Beaumont, for high school, for which bonds were voted; semi-fireproof; 2 stories and basement; 14 classrooms; auditorium to seat 1000; electric lights; steam heat; vacuum cleaning system; cost \$32,000; contract probably let June 16. (Previously noted.)

Tex., Sherman.—City voted \$30,000 bonds to complete and equip high school. Address The Mayor. (Lately noted.)

Tex., Vernon.—Crescent Cove School Dist. voted \$3500 school bonds. Address School Board, Vernon.

Tex., Victoria.—Victoria Ind. School Dist. opens bids June 20 to erect high school; fireproof; 3 stories; 15 classrooms; brick; Barrett's specification roof; cost \$70,000; C. H. Page & Bros., Archts., Austin. (Previously noted.)

Va., Abingdon.—Stonewall Jackson College will erect Stonewall Jackson Memorial Hall.

Va., Petersburg.—City School Board, F. M. Martin, Clerk, receives bids until June 18 to erect 2 colored schools; separate bids for heating and ventilating systems; plans and specifications from Charles M. Robinson, Inc., Archt., Richmond.

STORES

Fla., Bradentown.—G. B. Wallace will erect store and apartment building; 2 stories; brick; cost \$15,000; Chapman & Argo, Bradentown, in charge of construction.

Fla., Daytona.—Henry T. Titus will erect store and theater building. (See Theaters.)

Fla., Daytona.—Conrad-Bullard Co. will erect store building on Orange St. (Lately incorrectly reported to erect theater and store building.)

Fla., Jacksonville.—W. N. Scott will erect 3-story brick addition to building on Talleyrand Ave.

Ky., Louisville.—Standard Oil Co., will erect brick building at Baxter St. and Broadway; cost \$3180.

La., Abbeville.—L. and M. Sokoloski Co. will erect 2-story brick addition to store building.

La., New Orleans.—Dr. T. J. Dimitry will erect office and store building. (See Bank and Office.)

Mo., Kansas City.—H. Sheskin will erect business building; 1 story; cost \$7000.

Mo., Kansas City.—Simpson & Hackett will erect 1-story store building; cost \$7500.

Okla., Buffalo.—I. O. O. F. will erect business and lodge building. (See Association and Fraternal.)

Tex., Comfort.—Arno Schwetelm will erect 2-story stone store and office building; fireproof; concrete floors.

Tex., Dallas.—Alex. Camp will erect 4-story brick store; cost \$25,000.

Mo., St. Louis.—Isaac A. Hedges, Mgr. Cupples Station property of Washington University, will erect 7-story and basement fireproof building to be occupied by Haas-Lieber Grocery Co.; 155x140 ft.; automatic sprinklers; electric and hydraulic elevators.

Tex., Meyersville.—Isaac Eggs Sons will erect reinforced concrete business building; 40x100 ft.

Va., Hopewell.—Wright-Crutchfield Co., Inc., will erect store and office building;

42½x117x82x110 ft.; 2 or 3 stories; brick; details not determined. (Lately noted.)

Va., Richmond.—H. T. Enrock will erect 2-story brick store building at 1725 E. Main St.; cost \$6000.

Va., Richmond.—J. J. Lichtenstein will expend \$20,000 to repair brick store building.

W. Va., Keystone.—Charles Budnick is having plans prepared by Alex. Mahood, Bluefield, W. Va., for 3 store and apartment buildings to replace burned structures; brick.

THEATERS

Fla., Daytona.—Henry T. Titus will erect theater and store building on Orange St.; 70x90 ft.

N. C., Greensboro.—W. D. McAdoo will expend \$5000 for improvements to Isis Theater; enlarge stage, etc.; concrete construction; metal roof; wood floors; Mr. Brewer, Archt.

Tex., Dallas.—J. A. Cressey and others are reported to erect moving-picture theater on Elm St. near Ervay; seating capacity 3000; 18-ft. lobby entrance on Elm St.; site 75x100 ft.; cost \$300,000.

WAREHOUSES

Ark., Marianna.—Griffs & Newbern have plans by McGee & Lester, Memphis, Tenn., for warehouse and garage; 80x100 ft.; 3 stories; brick; Barrett roof; joist floors; city electric lights; large freight elevator; date awarding contract not set; cost \$12,500.

Fla., Hastings.—Bentz Bros., Fort Pierce, Fla., will erect storage building and livery barn.

Ga., Adel.—S. A. Parrish will erect cotton warehouse.

N. C., Hickory.—Brookford Mills Co. will erect storage warehouse.

N. C., Wilson.—Hughes, Thomas & Co., Inc., Greenville, N. C., will erect brick storage plant in South Wilson; cost \$15,000; will operate as Hughes, O'Brian & Co.

Okla., Tulsa.—Southern Hardware Co. inceptd. with \$60,000 capital by P. E. Elliott, Prest.; John F. Maires, V.-P.; Joseph Drouot, Secy.; D. D. Wertzberger, Treas.; D. A. Smith, Mgr.; will erect 6-story fireproof warehouse; 50x100 ft.

Va., Norfolk.—Chesapeake & Ohio Ry. Co., opened bids to erect 3 warehouses. (See Railway Stations.)

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Fla., St. Petersburg.—Mrs. Annie McRae let contract to S. J. Marton, St. Petersburg, to erect apartment-house; frame; Reynolds composition roof; wood floors; cost \$7000. (Lately noted.)

Ga., Athens.—Rev. S. R. Grubb let contract to G. M. Caskey, Athens, to convert old Christian Church building into apartment-house.

Ga., Atlanta.—Lucien Knight will erect apartment-house at Jackson St. and North Ave., to replace structure damaged by fire; 3 stories; 30 apartments; white brick; marble stairways; A. F. N. Everett, Archt. and Builder, Grand Bldg., Atlanta; cost \$75,000.

Ga., Atlanta.—Dr. W. E. Lambright, Mrs. Dr. B. H. Barr, H. M. House have plans by and let contract to M. G. Norris, 628 Hurt Bldg., Atlanta, to erect Juniper Terrace, Bertha Barr and Houser Apartments, respectively; 19, 6 and 4 suites; hollow tile and brick veneer; tile and tar and gravel roofs; frame floors; electric lights; cost \$85,000, \$22,500 and \$16,500; 2 pipe vapor heat, \$4500, \$1500 and \$2500. (Lately noted.)

ASSOCIATION AND FRATERNAL

Tex., Fort Worth.—Grand Lodge of Texas, A. F. & A. M., let contract to Watson Co., Dallas, to erect boys' dormitory; 152x110 ft.; "H" shape; fireproof; composition roof; reinforced concrete floors; steam heat and electric lights from central plant; cost \$126,000; Hubbell & Greene, Archts., Dallas. (Other contracts lately noted.)

BANK AND OFFICE

Ala., Birmingham.—E. L. Brown, agent for owners of Brown-Marx Bldg., will remodel lobby and entrances of building; install 2 revolving doors and 2 plain doors; remodel stairways; elevator battery to be paneled with marble; lobby to be lined with marble, etc.; fireproof construction; Warren & Knight, Archts., 1007 Empire Bldg., Birmingham; day labor; subcontracts let. Address architects.

Knowls, Robert Mays and Sam Hunt let contract to erect bank and 5 stores. (See Stores.)

Tex., Port Arthur.—W. C. Tyrrell, Beaumont, let contract to erect store and office building. (See Stores.)

Tex., San Antonio.—Alexander Joske let contract to erect theater and office building. (See Theaters.)

CHURCHES

Fla., St. Augustine.—Trinity Episcopal Parish let contract to Chas. Leyvraz, St. Augustine, to erect building for parish hall, classrooms, etc.; 35x50 ft.; 2 stories; slow-burning construction; tile and tin roof; concrete, tile and wood floors; steam heat; electric lights; cost \$3000; Chas. A. Henderich, Archt., St. Augustine. (Lately noted.)

Ky., Lexington.—Ashland Avenue Baptist Church, Rev. Clarence Walker, Pastor, let contract at \$23,387 to J. T. Jackson Lumber Co., Lexington, to erect building; brick; stone trim; tin roof; furnace; auditorium to seat 600; 25 Sunday-school rooms; Arthur Gianini, Archt., 2671 E. High St., Lexington. (Previously noted.)

Okla., Oklahoma City.—First Methodist Church let contract to Gross Construction Co., Oklahoma City, to erect addition to building.

S. C., York.—First Presbyterian Church let contract to Chas. K. Bryant, Richmond, Va., to complete McNeil Memorial Sunday-school building.

Tex., Floydada.—First M. E. Church South let contract to Sam Dane, Floydada, to erect building; 72x80 ft.; brick and ordinary construction; asphalt shingle and composition roof; concrete and wood floors; steam heat; cost \$18,000; Hawk & Parr, Archts., Oklahoma City. (Lately noted.)

Tex., Itasca.—Methodist Church let contract to C. W. King, Dallas, to erect building; plans by C. W. Bulger & Son, Dallas, call for brick and interlocking tile; 50x100 ft.; gravel or composition roof; hot-air heat; electric lights; cost \$17,000. (Previously noted.)

Tex., Van Alstyne.—Methodist Episcopal Church let contract to L. M. Miller, McKinney, Tex., to erect building; 64x90 ft.; ordinary construction; tar and gravel roof; wood floors; electric lights; cost \$21,000; John Tulloch, Archt., Sherman, Tex. (Lately noted.)

CITY AND COUNTY

Fla., Bradentown.—Library.—City let contract to T. W. Hullinger, Bradentown, to erect \$10,000 Carnegie library. (Previously noted.)

Ga., Cordele.—Library.—City let contract to Little & Phillips, Cordele, to erect Carnegie library; 38x50 ft.; brick, stone and ordinary construction; metal and gravel roof; wood floors; heating not decided; electric lights; cost \$10,000; Eugene C. Wachendorf, Archt., Atlanta. (Lately noted.)

Ga., Macon.—Auditorium.—City let contract at \$91,669 to W. J. Beeland, Macon, to erect auditorium; 140x206 ft.; hollow tile and concrete; slate or composition roof; hollow-tile and concrete floor construction; steam heat; electric lights; Alexander Blair, Archt., Macon. (Lately noted.)

N. C., Durham.—Dwellings.—City let contract to W. H. Woods, W. Durham, N. C., to erect 2 dwellings for water-works operatives; 1 story; 40x50 ft.; frame; shingle roof; wood floors; cost \$5000; Gilbert C. White, Archt., Durham. (Previously noted.)

Okla., Henryetta.—City Hall, etc.—City Commissioners, Ira Martin, Mayor, let contract to Holmboe Co., Oklahoma City, to erect building for city hall, prison, police department, fire department and auditorium; 2 stories and basement; 70x110 ft.; reinforced concrete first floor; balance, frame and brick; stone facing; metal-tile roof; Ceramic tile, cement and yellow pine floors; low pressure C. I. boiler steam heat; city lighting; 3 vault lights 3x6 ft.; cost \$60,000; Weathers & Trapp, Archts., Oklahoma City; construction begins in 15 days. Address contractors. (Previously noted.)

Tenn., Knoxville.—Library.—City let contract to Worsham Bros., Knoxville, to erect Carnegie library at Vine Avenue, Nelson and Sneed Sts.; 36x65 ft.; ordinary construction with brick walls; gravel roof; wood floors; vacuum steam heat; electric lights; cement sidewalks; cost \$15,000; also let contract at \$1043 to Engert-Long Plumbing Co., Knoxville, for plumbing; Albert B. Baumann, Archt., 713 Henson Bldg., Knoxville. (Lately noted.)

Tenn., Knoxville.—Home.—City Commrs. let contract to J. M. Stair & Son, Knoxville, to erect addition to Camp Home for Friendless Women, consisting of 8 dormitory rooms, basement with cement floor for laundry; 2 stories; 36x50 ft.; ordinary brick and frame; asphalt shingle roof; joist floors; cost \$6665; plans and specifications by C. M. Thompson, City Building Inspector.

Tex., San Angelo.—Jail.—Tom Green County let contract to Willeke Bros., San Angelo, to erect jail; 27x83 ft.; brick; concrete and paper roof; concrete floors; cost \$60,000; heating \$3000; lighting \$2100; H. A. Overbeck Archt., Dallas. (Lately noted.)

DWELLINGS

Ala., Athens.—C. D. Glaze let contract to N. B. Norwood to erect residence to replace structure lately noted damaged by fire; 8 rooms; frame; composition roof; hardwood floors; electric lights; cement sidewalks; cost \$4000.

D. C., Washington.—W. E. Fowler, Munsey Bldg., let contract to W. Jeffreys to erect frame dwelling, 100 Kennedy St. N. E.; cost \$5000.

Fla., Miami.—Crump Construction Co., Miami, has contract to erect 42 bungalows; about 22x35 ft.; frame; composition roofs; wood floors; cost \$84,000. (See Machinery Wanted—Building Materials; Lumber; Roofing.)

Fla., West Palm Beach.—W. E. Poland, West Palm Beach, has contract to erect residence for Lewis C. Jones; 32x38 ft., with wing 15x27 ft.; frame; cypress shingle roof and walls; 3 stories; 15 rooms; cost \$9000; addition and garage for M. S. Friede; addition to include breakfast-room enclosed with glass, sleeping porch, 2 bedrooms and 2 baths; garage, 2 stories; stucco; 18x53 ft.; tile roof; cost \$6000 to \$9000; residence for Helen Harris, Boston, Mass.; 32x38 ft., with wing 15x27 ft.; 3 stories; stucco; tile roof; \$25,000 residence for Morton C. Nichols, Greenwich, Conn.; 2 stories; concrete; tile roof.

Miss., Sumner.—Dr. R. L. Cashburn let contract to Estes & Williams, Clarksdale, Miss., to erect residence; 44x50 ft.; hollow tile and stucco; composition shingle roof; joist floors; electric lights; cost \$12,000; hot-water heat, \$1200; McGee & Lester, Archts., Memphis, Tenn. (Lately noted.)

N. C., Concord.—Locke Cotton Mills Co. let contract to erect six 4-room dwellings to replace structures noted damaged by fire; frame; shingle roof; cost \$800 each. (See Machinery Wanted—Lathes.)

N. C., Durham.—Durham Cotton Manufacturing Co. let contract to W. E. Lynn, Durham, to erect 6 tenements and remodel number structures.

N. C., Durham.—City let contract to erect 2 dwellings. (See City and County.)

Okla., Norman.—John E. Donnell, 1½ N. Harvey St., Oklahoma City, has contract to erect number of bungalows.

Okla., Oklahoma City.—Classen Co. let contract to John E. Donnell, 1½ N. Harvey St., Oklahoma City, to erect number of bungalows.

S. C., Anderson.—Mrs. A. G. Fretwell let contract to G. E. Pinson, Anderson, to erect residence; 7 rooms; frame; cost \$3500; C. Gadsden Sayre, Archt., Anderson. (Lately noted.)

Tenn., Harriman.—J. W. Stegall and J. H. Watts let contract to Adkisson & Haines, Harriman, to erect residence to replace structure lately noted damaged by fire; 8 or 9 rooms and bath; wood; asphalt shingle roof; day labor.

Va., Lower Brems.—Mrs. C. L. Cocke let contract to King Lumber Co., Charlottesville, Va., to alter residence to include electric wiring, steam heating, plumbing, etc.; contractor is letting sub-contracts; Parker, Thomas & Rice, Archts., Union Trust Bldg., Baltimore.

Va., Norfolk.—C. H. Reddington let contract to J. E. Barclay, Norfolk, to erect two 2-story frame residences; cost \$3250.

GOVERNMENT AND STATE

Tex., El Paso.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., let contract at \$283,990 to Wm. H. Maxwell, Lakeside, Wash., to construct postoffice; completion in 30 months. (Previously noted.)

HOTELS

Fla., Bonita Springs.—D. W. Summer let contract to erect 20-room hotel.

Fla., St. Petersburg.—Carley & Hunt let contract to Beard & French to erect addition

to West Coast Inn; 100x100 ft.; 32 rooms and 16 baths; 1 story; also remodel interior of present structure; Henry H. du Pont, Archt., St. Petersburg. (Previously noted.)

Fla., St. Petersburg.—Mrs. E. C. Reed let contract to remodel and erect addition to Wigwam Hotel; addition 92x70 ft.; 35 rooms; cost \$15,000; Ferdon & Feltham, Archts., St. Petersburg.

Mo., St. Louis.—Milford Hotel Co., leased office building owned by Roe Estate and will remodel for hotel; about 200 rooms, equipped with baths, showers, hot and cold water, telephones, etc.; ground floor, stores; reported cost \$100,000; Harry Horowitz, Contr., 521 Boatmen's Bank Bldg.; Kennerly & Steigmyer, Archt., 505 Benoist Bldg., both of St. Louis.

N. C., Greensboro.—Hotel Building Co. let contract at \$235,000 to J. L. Crouse, Greensboro, to erect O. Henry Hotel; reinforced concrete; tar and slag roof; flat-tile and concrete floor construction; electric wiring (not awarded), cost about \$13,000; electric elevators (not awarded), about \$15,000; let contract at \$40,000 to B. MacKensie, Greensboro, for high-pressure steam-heating plant; at \$54,000 to Hunt Bros., Greensboro, for plumbing; will install ice machinery at cost of about \$6000; total cost about \$435,000; W. L. Stoddart, Archt., 9 E. 40th St., New York. (Lately noted.)

Okla., Tulsa.—O. K. Eysenbach let contract to erect store and hotel building. (See Stores.)

MISCELLANEOUS

Ala., Eufaula.—Clubhouse.—Eufaula Country Club let contract to Eli Giddings, Eufaula, to erect clubhouse; 82x92 ft.; frame; Rex Flintcoat slate-surface shingle roof; rift pine floors; J. F. Leitner, Archt., Mealey Bldg., Atlanta, Ga. (Previously noted.)

Mo., St. Louis.—Restaurant.—T. J. Ward Construction Co., 408 N. 11th St., St. Louis, has contract to erect restaurant for George Angelich; glass front with marble and stone trimmings; the floor; marble wainscoting; ornamental plaster cornice with mural decorations on canvas; cost \$25,000; Preston J. Bradshaw, Archt., International Life Bldg., St. Louis.

N. C., Raleigh.—Fair.—North Carolina State Fair Assn. let contract to T. M. Copeland, Raleigh, to erect 2 buildings at fair grounds; 130x50 ft. and 50x30 ft.; wood; composition roof; wood floors; electric lights; cost \$8500; J. M. Kennedy, Archt., Raleigh. (Lately noted.)

RAILWAY STATIONS, SHEDS, ETC.

Ga., Oakland.—Atlanta & West Point R. R. let contract to Hinton-Stewart Co., Athens, Ga., to erect warehouse; 100.8x350.8 ft.; rubble, granite and brick walls; tar and gravel roof; concrete floors; electric lights; cost \$27,400; A. B. Edge, Archt., Atlanta; address contractors at 35 Warner St., Atlanta. (Lately noted.)

Md., Baltimore.—Northern Central Ry. Co., Alexander C. Shand, Chief Engr., Philadelphia, let contract to Consolidated Engineering Co., 243-55 Calvert Bldg., Baltimore, to erect warehouse at 1601-07 Thames St.; 1 story; 97x102 ft.; frame; cost \$19,000; Owens & Sisco, Archts., 1005 Continental Bldg., Baltimore.

SCHOOLS

Ark., Paragould.—School Board let contract to Higbfill & Boone, Paragould, to erect 8-room brick school in South Paragould; cost \$14,000. (Lately noted.)

Ark., Plainview.—Plainview Special School Dist. let contract to Jenkins & Adams, Little Rock, to erect school building; 74x84 ft.; brick; Carey composition roof; wood floors; hot-air heat; cost \$14,000; J. H. Bliss, Archt., Little Rock. (Lately noted.)

Ga., Sale City.—Sale City School Dist. let contract to erect \$11,000 brick school building. (Address Dist. School Trustees. (Lately noted.)

La., Ball.—Rapides Parish School Board, Alexandria, La., let contract to Gehr Construction Co., Alexandria, to erect school; 2 stories, with basement; 82x62 ft.; brick, reinforced concrete and plaster interior; Kensby and Mattison asbestos shingle roof; edge grain floors; stoves; cost \$11,500; C. Scott Yeager, Archt., Alexandria. (Lately noted.)

Mo., Canady.—Canady School Board let contract to A. J. Dillman, Caruthersville, Mo., to erect school; 34x64 ft.; brick and hollow-tile walls; wood shingle roof; joist and double floors; cost \$3700; M. E. Worcester, Archt., Caruthersville, Mo. (Lately noted.)

N. C., Mt. Pleasant.—Mt. Pleasant Collegiate Institute let contract to J. Leonard Brown, Concord, N. C., to remodel building, to include about 26 additional dormitory-rooms, sewerage and plumbing systems, etc.; cost about \$15,000; also erect addition in rear; 3 stories and basement; 92x40 ft.; cost \$15,000; H. E. Bonitz, Archt., Wilmington, N. C.

Okla., Red Fork.—Red Fork School Dist. let contract to Universal Construction Co., Tulsa, to erect school; 126x65 ft.; ordinary construction; Barrett roof; joist floors; fan heating system (installed later); cost \$43,000; M. C. Cross and H. H. Mahler, Archts., Tulsa. (Lately noted.)

S. C., Greenville.—City School Trustees let contract to M. T. Loftis, Greenville, to erect ward school on Stone Ave.; 4 classrooms; brick; J. E. Sirrine, Archt., Greenville. (Lately noted.)

Tenn., Charleston.—Grammar School Board, W. L. Humphrey, Chrmn., let contract to White & Ball, Cleveland, Tenn., to erect grammar and high school; 76x98 ft.; brick and frame; asphalt shingle roof; electric lights; cost \$15,000; hot-air blower system of heat, \$2182.38; Clarence T. Jones, Archt., 1102 James Bldg., Chattanooga, Tenn. (Lately noted.)

Tenn., Gunning.—Trustees let contract to Pile Bros., Kingsport, Tenn., to erect school; completion by August.

Va., Goshen.—Rockbridge county will erect high school; 45x48 ft.; wood; asphalt or tin shingle roof; wood floors; cost \$5000; bids opened June 5. Address D. E. Withrow, Goshen, or E. K. Paxton, Lexington, Va. (Lately noted.)

W. Va., Beckley.—Town Dist. Board of Education let contract to C. Aliff for excavation for district high school; to W. P. Robertson, Beckley, for stone work and foundation; this portion of work to cost \$16,000; 99x135 ft.; 3 stories; brick and stone; fireproof corridors and stairways, balance ordinary construction; Carey's flexible 5-ply built-up cement roof; corridor floors cement, others wood; cost \$125,000; heating about \$16,500. Address W. H. St. Clair, Archt., Charleston, W. Va. (Lately noted.)

W. Va., Point Pleasant.—Board of Education, P. H. Steenbergen, Prest., let contract at \$31,000 to S. Q. Henke & Sons, Gallipolis, Ohio, to erect high-school building; to Hammond Heating Co., Cincinnati, at \$3200 for heating; plans by Chas. W. Bates, National Bank Bldg., Wheeling, call for 2 stories; 60x70 ft.; reinforced concrete; tapestry brick and terra cotta; reinforced concrete floors with wood surface; fireproof composition roof; modulation low-pressure heat with exhaust ventilation; electric lights. (Lately noted.)

W. Va., Summit Point.—School Board let contract to F. O. Trump, Martinsburg, W. Va., to erect school building; concrete and brick; 4 rooms and basement; cost \$12,000.

STORES

Fla., St. Petersburg.—C. M. Roser let contract to O. J. Whittaker, St. Petersburg, to erect business building; 1 story; frame; reinforced concrete; 80x100 ft.; Carey roof; tile floors; gas heat; electric lights; 5 stores and cafeteria; cost \$10,000. (Lately noted.)

Mo., Kansas City.—Irwin Cloak & Suit Co. let contract to Swenson Construction Co., Kansas City, to erect 8-story building; to Kansas City (Mo.) Structural Steel Co. for steel.

Okla., Tulsa.—O. K. Eysenbach, Box 1028, has plans by and let contract to Thos. Richmond, Tulsa, to erect store and hotel building; 50x136 ft.; 3 stories; brick and lumber; composition roof; concrete and wood floors; gas and electric lights; cost \$30,000. Address owner.

Tex., Oakwood.—C. H. Blackshear, R. L. Knowls, Robert Mays and Sam. Hunt let contract to Atkins Bros., Oakwood, to erect bank and 5 store buildings to replace burned structures; 25x80 ft. each; brick; asbestos roofs; concrete floors; stoves; electric lights. (Lately noted.)

Tex., Port Arthur.—W. C. Tyrrell, Beaumont, let contract to J. T. Bond, Beaumont, to erect store and office building; 2 stories; pressed brick and plate glass; 50x134 ft.; stores on lower floor; offices above; cost \$17,000; F. W. Steinman, Archt., Beaumont. (Lately noted.)

Tex., San Antonio.—J. M. Bennett let contract to Wright & Saunders, San Antonio, to erect business building; 2 stories and basement; fireproof; reinforced concrete; terra-cotta and face-brick front; 50x150 ft.;

occupied in part by Frost Bros.; Alfred Giles Co., Archt.; W. E. Simpson Co., Contracting Engrs., both of San Antonio.

W. Va., Logan.—Island Creek Mining Co. let contract to Diamond Construction Co., Huntington, W. Va., to erect store at Whitman to replace structure damaged by fire.

THEATERS

Tex., San Antonio.—Alexander Joske let contract to J. C. Dielmann, San Antonio, to erect theater and office building; 2 stories; reinforced concrete; auditorium to seat 900; upper floor for offices; Leo M. J. Dielmann, Archt., San Antonio. (Lately noted.)

WAREHOUSES

Ga., Oakland.—Atlanta & West Point R. R. let contract to erect warehouse. (See Railway Stations.)

Ky., Maysville.—R. J. Reynolds Tobacco Co. let contract to E. F. Hettrick Engineering Co., Empire Bldg., Birmingham, to erect plant to cost \$100,000. (Lately noted having

plans prepared by J. E. Sirrine, Greenville, S. C., for warehouse.)

La., Welsh.—Mutual Warehouse Co., Ltd., organized; A. R. McBurney, Prest.; G. W. Cosner, V.-P.; A. F. George, Secy.-Treas.; I. R. Alesworth, Mgr.; will erect warehouse 142x256 ft.; capacity 60,000 bu. rough rice; completion by July 1; Geo. D. Price, Contr., Lake Charles, La.

Md., Baltimore.—Kingsan Provision Co. let contract to J. J. Moylan, 117 E. Center St., Baltimore, to erect 3-story brick warehouse at 302-4 E. Pleasant St.; cost \$19,000; C. M. Anderson, Archt., 324 N. Charles St., Baltimore.

Md., Frederick.—F. W. Obenderfer & Son let contract to F. H. Grove, Frederick, to erect warehouse; 3 stories; brick; 30x60 ft.

Tenn., Nashville.—J. W. Napier will erect warehouse at Eleventh Ave. and McGavock St. for International Harvester Co.; steel and concrete; 120x150 ft.; concrete floors; steam heat; cost \$50,000; Foy-Proctor Co., Contrs., Nashville; also plans to erect two warehouses for Napier Brokerage Co. and State Milling Co.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Boiler.—See Engine and Boiler.—High-tower Oil Co.

Boiler.—Box 335, Bartow, Fla.—80 or 100 H. P., H. R. T. boiler, complete with stack and fittings; A-1 condition; carry F. & C. policy for 125 lbs. working pressure; state cash price, age, make and condition.

Boiler Work.—Treasury Department, Supervising Architect's Office, Washington, D. C.—Proposals opened July 2, for resetting 4 boilers and furnishing and installing steam-flow meters, feed-water regulators, etc., in United States postoffice and courthouse at Kansas City, Mo., in accordance with drawing and specification; copies at office of custodian, Kansas City and of Dept.

Bolt Threader.—Salem Iron Works, 234 S. Liberty St., Winston-Salem, N. C.—Second-hand Landis bolt-threading machine; price and full specifications, with guaranteed condition of machine.

Brick Machinery.—Geo. D. Sanders, Fairfax, S. C.—Data on manufacture of bricks and drainage tile and prices on machinery.

Bridge.—Fayette County Court and Nicholas County Court, Belva, W. Va.—Will receive bids in joint session, June 26, to construct reinforced concrete arch bridge across Twenty Mile between the 2 counties; consist of 2 55-ft. clear spans with 16-ft. clear roadway, and 4 20-ft. wings; clear height from extreme low water to underside of arch 11 ft.; depth from low water to base of foundation 5 ft.; bridge capacity, 20-ton roller; R. J. Stegall, Fayette County Clk., Fayetteville; P. N. Wiseman, Nicholas County Clk., Summersville.

Bridges (Steel).—Haywood County Court, Jas. Tipton, Chrmn., Committee, Brownsville, Tenn.—Bids until June 27 on 2 steel bridges across new Forked Deer River Canal; bidders to submit designs with bids; D. Meriwether, Engr., Jackson, Tenn.

Bridge (Steel).—Escambia County Commissioners, J. Geo. White, Chrmn., Pensacola, Fla.—Bids until June 19 to construct steel bridge across Escambia river at Molino, with approaches, etc., as per plans and specifications on file office of Jas. MacGibbon, Clk., Circuit Court, Pensacola; Geo. Rommell, Jr., Engr.

Bridge (Steel) Construction.—Comms. Forsyth and Yadkin counties, Winston-Salem, N. C.—Bids until June 18 to construct steel bridge, with concrete masonry, across Yadkin River near Donnoha; plans and specifications may be seen at office of J. M. Lentz, Forsyth County Clerk, Winston-Salem; G. W. Maslin is Chrmn. Forsyth County Comms., Winston-Salem; S. L. Doub, Chrmn. Yadkin County Comms., Yadkinville; J. N. Ambler, Consit. Engr., Winston-Salem.

Brooms, Brushes, Etc.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on: 225,000 whisk brooms; 260,000 fiber brushes; 30,000 hair brushes; 205,000 shoe brushes and daubers; all delivery Brooklyn; Schedule No. 1194.

Building Material.—See Mining Equipment.—Anjean Coal Co.

Building Materials.—Crump Construction Co., Miami, Fla.—Prices on lumber, tin roofing, plaster, etc., for 42 bungalows.

Building Material.—See Peanut Factory Equipment, etc.—Earl Cogdell.

Building Materials.—See Hydro-electric Plant Materials, etc.—Oklahoma Power & Transmission Co.

Building Materials.—F. M. Redlick, Oklahoma Agricultural and Mechanical College, Stillwater, Okla.—Prices on building materials for science hall and gymnasium armory building to cost \$100,000 each.

Cars.—G. Gentry, 1102 Railway & Power Bldg., Richmond, Va.—10 standard-gauge oil tank cars; 30 and 40-ton standard-gauge flat cars.

Cement Machinery.—E. W. Mudgett, Celba, Honduras, C. A.—Data and prices on machinery to manufacture cement.

Corn and Feed-Mill Machinery.—Millen Crusher Mills, A. S. Boyer, Mgr., Millen, Ga.—Prices on bean grinders, cornmills, gas engines, ensilage cutters, etc.

Compressor (Air).—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' price on steam-driven, 120 cu. ft. free air per min., 100 pounds pressure, air compressor.

Conveyor (Belt, Clay).—H. L. Longenecker, Cambridge, Md.—Prices on second-hand belt clay conveyor; troughed preferred.

Crushing Machinery (Bean).—W. L. Fenbet, Box 106, Empora, Miss.—Addresses of manufacturers of velvet-bean crushing machines.

Cranes, etc.—Bureau Supplies and Accounts, Navy Department, Washington D. C.—Bids until June 12, for delivering coke, traveling crane, steam generator, pig iron, lathes and milling machine at navy yard. Apply for proposals.

Crusher.—Henry Potts & Co., 650 Real Estate Trust Bldg., Philadelphia, Pa.—Stone crusher about 36x40 in.; give full specification, exact condition and lowest price delivered New York.

Crusher.—J. A. Sinclair, 125 N. Main St., Tulsa, Okla.—Second-hand crushing plant, Austin or Gates; crush limestone with daily capacity 400 or 500 yds.

Drainage.—Comms. New Hanover County Drainage Dist. No. 3, W. E. Price, Chairman, Wilmington, N. C.—Bids until June 25 to construct 9 mi. drainage ditches; plans and specifications obtainable from J. L. Becton, Engr., Wilmington, for \$5.

Electric Fixtures.—Electric Motor Exchange, Miami, Fla.—To represent manufacturers of electric fixtures; wants catalogues and prices.

Electric Range.—Thos. H. Brock, Hones Path, S. C.—Electric range.

Electric-light Plant.—City of Unadilla, Ga., C. B. Morgan, Mayor.—Prepared to grant electric-light franchise.

Electric Plant.—Electric Light Improvement Dist., Paris, Ark.—Bids June 29 on electric-light and power plant; A—Brick building, 30x86 ft., and machinery foundations; B—two 100 H. P. return-tubular boilers, 150 lbs. pressure; 200 H. P. open feed-water heater; 2 feed-water pumps, and steam and exhaust piping, all erected complete; C—(About) 140 H. P. steam engine of slide-valve, 4-valve or unafflow type, at speed of not to exceed 225 R. P. M. and

steam pressure 125 lbs., arranged for direct connecting to alternator; vertical-type steam separator, all installed complete; D-120 K. V. A., 60-cycle, 2300-volt, 3-phase, engine-type alternator, with exciter, switch-board, voltage regulator, 6.6 amp., constant-current transformer, with switchboard, all installed and wired complete; W. N. Gladson, Consult. Engr., Fayetteville, Ark.

Electrical Equipment.—See Heating Plant. J. R. Hicks.

Electrical Equipment.—F. M. Redlick, Oklahoma Agricultural and Mechanical College, Stillwater, Okla.—Prices on electrical equipment for science hall and gymnasium armory buildings to cost \$100,000 each.

Electrical Equipment.—See Hydro-electric Plant Materials, etc.—Oklahoma Power & Transmission Co.

Electrical Fixtures.—Walter E. Wright, Tulsa, Okla.—List of firms selling electrical fixtures.

Engine and Boiler.—Hightower Oil Co., Brundidge, Ala.—Prices on 125 H. P. Corlies engine and 125 to 150 H. P. boiler.

Engine (Gas).—See Water-works Equipment.—City of Red Fork.

Engines (Gas).—See Corn and Feed-Mill Machinery.—A. S. Boyer.

Engines.—F. M. Redlick, Oklahoma Agricultural and Mechanical College, Stillwater, Okla.—Prices on engines for science hall and gymnasium armory buildings.

Engine (Hoisting).—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Jobbers' prices on 8x10 single-drum, double-cylinder, steam hoisting engine, with and without boiler, with drum to carry 600 ft. 3/4-in. wire rope.

Excavation.—Washington County Drainage Commrs., B. B. Gordon, Engr., Greenville, Miss.—Bids until June 11 to clear channels of Black Bayou and Grapic Bayou; 6 mi.; specifications on file with Commissioners; for further information address Mr. Gordon.

Furnaces, Blowers, etc.—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until June 12, for furnishing and installing complete furnaces and blowers and delivering coke, radial drill, flat turret lathes; band saw, boring, punching, pneumatic riveting, and rotary scarfing machines and circulating air pumps at navy yard, Philadelphia. Apply for proposals to supply officer, navy yard, Philadelphia, Pa., or to Bureau.

Flooring (Maple).—Victoria Hardware Co., Victoria, Tex.—7000 sq. ft. select maple flooring, 2 1/2 x 3-16 in.

Handles.—J. P. Ward & Son, 306 35th St., Savannah, Ga.—Names and addresses of street-broom handles.

Heating Plant.—J. R. Hicks, Claude, Tex. Prices on heating plant, plumbing and electrical equipment for \$1700 church building.

Heating Plant, etc.—Building Committee, R. L. Kirkpatrick, Chrmn., Ducktown, Tenn.—Bids until June 11 to install heating, plumbing and electric wiring in Ducktown Grammar School; plans on file with Mr. Kirkpatrick and with W. H. Sears, Archt., James Bldg., Chattanooga.

Heating Plant, etc.—R. L. Kirkpatrick, Chrmn. Bldg., Com., Ducktown, Tenn.—Bids until June 11 for heating, plumbing and electric wiring for Ducktown Grammar School; plans on file with Mr. Kirkpatrick and W. H. Sears, Archt., James Bldg., Chattanooga.

Hoists.—Navy Dept., Bureau Supplies & Accounts, Washington, D. C.—Bids on: 31 electrical equipments—rammer and powder hoists, 16-in. elevating gear; 11 sets 14-in. shell hoists; f. o. b. works; Schedule 1193.

Hydro-electric Plant Materials, etc.—Oklahoma Power & Transmission Co., W. H. Zimmerman, Construction Engr., Ada, Okla.—Prices on bricks, fire bricks, fire clay, cement; reinforcing steel; concrete chimney; steel trusses; sheet steel breaching; steel intake pipes; intake screens; high-tension equipment; tables; pole line equipment; copper wire; gas burners for boilers; pipe; fittings; concrete machinery; electric and steam-hoisting equipment, etc.

Iron (Sherardizing) Machinery.—Frank Sutter, Pass Christian, Miss.—Outfit to sherardize iron for use in salt water.

Laboratory Equipment, etc.—N. V. C. h. J. C. Th. Marius, Ganzmarkt 4-10, Utrecht, Holland.—To correspond with manufacturers of all kinds of instruments and glass-work for chemical, bacteriological, pharmaceutical, hygienic and botanical laboratory

ries, physical and meteorological instruments for institutes and schools; raw materials for manufacture of instruments.

Lathe (Engine).—Locke Cotton Mills Co., Concord, N. C.—Prices on 18-in., giving 6 ft. between centers, engine lathe for general cotton-mill repair work.

Lathes, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 19 for delivering brass, manganese bronze, engine lathes, pipe fittings, brass and copper tubing, anchors and valves at navy-yard, Norfolk, Va. Apply for proposals to supply officer, navy-yard, Norfolk, or to Bureau.

Loader (Log).—Lenox Sawmill Co., Lenox, Ky.—Second-hand American log loader, 36-in. gauge.

Leather, etc.—Fortunato Habib, Malta.—To correspond with exporters of leather and box calf for shoes; also cigars and leaf tobacco.

Lighting Fixtures.—Treasury Dept., Supervising Archt.'s Office, Washington, D. C.—To open bids June 29 to furnish and install lighting fixtures in United States postoffices at Ashland, O.; Bonne Terre, Mo.; Buckhannon, W. Va.; Charlotte, Mich.; Dowagiac, Mich.; Evansville, Ind. (extension); Middletown, Conn.; Nacogdoches, Tex.; Skowhegan, Maine; Warrenton, Va.; Washington, Ind.; Yoakum, Tex.; copies of drawings and specifications obtainable.

Locomotives.—G. Gentry, 1102 Railway & Power Bldg., Richmond, Va.—Standard-gauge locomotive carrying 200 lbs. working pressure or better on drivers; 24-in. gauge 5 to 8-ton steam locomotive.

Log Loaders.—Machinery Exchange, New Orleans, La.—Three log loaders; American or Marion preferred.

Lugs.—See Rods (Silo), Lugs and Nuts.—Interlocking Cement Stave Silo Co.

Lumber.—See Building Materials.—Crump Construction Co.

Machine Tools, etc.—Navy Dept., Bureau Supplies & Accounts, Washington, D. C.—Crane overhead, electric traveling, 4-motor, 15-ton; delivery Washington, Schedule 1192; drill 16-in. motor-driven, high-speed, sensitive; delivery Brooklyn, Schedule 1199; drill radial semiuniversal; delivery Philadelphia; Schedule 1188; generator steam turbine-driven electric; delivery Annapolis; Schedule 1198; 7 lathes engine, high-speed, universal; delivery Annapolis; Schedule 1196; lathe screw-cutting, extension, motor-driven, back-gear; delivery Brooklyn; Schedule 1199; 2 lathes flat turret, 2 1/2 x 24 in., motor-driven; delivery Philadelphia; Schedule 1188; 2 machines band-saw, 30-in.; delivery Philadelphia and Norfolk; Schedule 1187; 2 machines vertical, wood-post boring; delivery Philadelphia and Norfolk; Schedule 1187; machine milling, 4-head, adjustable rail; delivery Washington; Schedule 1197; machine milling, universal; delivery Brooklyn; Schedule 1199; 2 machines punch, horizontal, single; delivery Philadelphia and Norfolk; Schedule 1187; machine punching, portable; delivery Norfolk; Schedule 1187; 4 machines punching, hydraulic, portable, 25 and 30 ton; delivery Philadelphia and Norfolk; Schedule 1187; 5 machines riveting, pneumatic, 60, 70, 30 tons; delivery Philadelphia and Norfolk; Schedule 1187; 2 machines scarfing, rotary, vertical spindle; delivery Philadelphia and Norfolk; Schedule 1187; machine gate shear, electrically driven; delivery Norfolk; Schedule 1187.

Machinery, etc.—Barles Jeune, 23 Rue du Temple, Paris, France.—To represent manufacturers of: Tools for every branch of industry; automobiles; machinery of all kinds; hoisting installations; heating and lighting plants; supplies and equipments for factories and mines; wood for building purposes; railroad supplies; culinary utensils of all kinds; sanitary goods; dust and dirt removers; iron hardware, etc.

Manufacturers.—J. Juliao, San Pedro de Macoris, Dominican Republic.—To represent manufacturers of various classes of products.

Metals, Tubing, Scales, Lumber, etc.—Panama Canal, Earl I. Brown, General Purchasing Officer, Washington, D. C.—Bids until June 25 for structural steel, pig-iron, pig-lead, pig-aluminum, ferro-silicon, wire rope, bolts, nuts, nails, staples, screws, brass, copper, copper tubing, condenser tubes, electric wire, tanks, valves, hose nozzles, electric fixtures, electric fittings, flexible joints, pipe fittings, kalemein doors, cotton-waste machines, washing machines, platform scales, tallow pots, spading forks, rules, spectacles, manila rope, twine, hose, packing, gaskets, pipe covering, tile, paper clips, memorandum books, paper, glue, sal soda, caustic soda, coal tar, foundry clay,

silica sand, silica wash, carbon bisulphide, lime, rock salt, foundry flour, putty, muriatic acid, sulphuric acid, creosote oil, linseed oil, turpentine, turpentine substitute, paint drier, white zinc, white lead, red lead, paints, varnish, shellac, litharge, lumber, and spud timbers; blanks, etc., relating to circular (No. 1148) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; Audubon Bldg., New Orleans, La., and Fort Mason, San Francisco; also from United States Engr. offices throughout United States.

Mining Equipment.—Anjean Coal Co., H. B. Jones, Prest.-Mgr., Hazard, Ky.—Prices on mine cars, building material, tipples, wire ropes.

Mining Machinery (Manganese).—Whitson Co., Nashville, Tenn., or Hot Springs, Ark.—Interested in prices on additional machinery for manganese mining, Montgomery county, Ark.

Motor.—United Pocahontas Coal Co., Crumpler, W. Va.—A. C. induction motor, 225 to 250 H. P., 440-volt, 3-phase, 60 cycles, with starting compensator provided with overload trip and no voltage release.

Motor (Electric).—Thos. H. Brock, Honea Path, S. C.—1 H. P. single-phase 110-volt electric motor.

Oils, etc.—Tornabell & Co. (acting for J. Barrios & Caballero, Girardot, Colombia.—Names and addresses of manufacturers of white codliver oil; turpentine; linseed oil, boiled; commercial almond oil; castor oil.

Paving.—City of Clinton, N. C., H. A. James, Clk.—Bids until June 19 on 11,000 sq. yds. sheet asphalt or other pavement on concrete base, or concrete pavement, with curbing, gutters, etc.; proposal forms and specifications obtainable from Wm. M. Platt, Engr., Durham, N. C.

Paving, etc.—City of Greensboro, N. C., Walter H. Woodson, Mayor.—Bids until June 14 to pave section of S. Fulton St.; 8500 sq. yds. bitulithic pavement on 4-in. concrete foundation; 1500 sq. yds. 2-ft. concrete gutters; 1000 cu. yds. excavation; 6400 ft. 5x18-in. pointed granite curb; 300 ft. 5x 18-in. pointed granite curb, circular; 580 sq. yds. street railway paving, single track, with concrete foundation and wearing surface; 60 lin. ft. 24-in. terra-cotta storm sewer; 150 ft. 12-in. storm-water sewer, etc.; also to resurface Fulton St. in Dist. No. 5; 15,000 sq. yds. bitulithic resurfacing over macadam; 400 lin. ft. 5x18-in. pointed granite curb; 4 cast-iron storm-water grates inlet; specifications, proposal forms, etc., on file with J. W. Webb, City Engr.

Paving.—City of Miami, Fla., W. B. Moore, City Clerk.—Bids until June 14 for following: Contract No. 1, highway improvements H-65, H-75 and H-76, 13,000 sq. yds. broken-stone pavement and 5000 lin. ft. concrete curb and gutter; contract No. 2, highway improvements H-67, H-68, H-69 and H-70, 10,000 sq. yds. broken-stone pavement and 7500 lin. ft. concrete curb and gutter; contract No. 3, highway improvements H-71, H-72, H-73, H-66, H-74 and H-77, 15,000 sq. yds. broken-stone pavement and 2500 lin. ft. concrete curb and gutter; contract No. 4, highway improvements H-65 to H-77, both inclusive, furnishing 34,000 gal. light road oil; also contract No. 1, Sidewalk Dist. 14 and 15, 1500 sq. yds. concrete sidewalk and 2800 lin. ft. concrete curb; contract No. 2, Sidewalk Dist. 16 and 17, 5000 sq. yds. concrete sidewalk; contract No. 3, Sidewalk Dist. 12 and 19, 2600 sq. yds. concrete sidewalk; plans and specifications obtainable from City Engr. for \$5 per set, and are on file with City Clerk.

Paving.—Fairlawn Cemetery Association, Fred. E. Suits, Prest., 509 Patterson Bldg., Oklahoma City, Okla.—Bids until June 9 to construct system of driveways in Fairlawn Cemetery; alternate bids on concrete pavement, sheet asphalt on concrete base, asphaltic concrete base, and watered and rolled gravel roadways; specifications on file with Will H. Clark, Secy.

Peanut Factory Equipment, etc.—Earl Cogdell, care Granbury Cotton Oil Co., Granbury, Tex.—Prices on complete peanut plant equipment to manufacture peanut oil, butter, shelled peanuts, etc.; power plant, storage tanks, transmitting machinery, belting, etc.; also building material.

Pipe, Tubing, etc.—Gooding-Keith Oil Co., Ravenna, Ky.—Prices on second-hand 1-in. and 2-in. black line pipe; 6 1/2 and 8 1/2 casing; 2-in. tubing; 3/4 sucker rods.

Plumbing.—See Heating Plant.—J. R. Hicks.

Plumbing.—Baltimore (Md.) Board of Awards, City Hall.—Bids until June 13 to remodel plumbing in Schools Nos. 5, 8, 10, etc.; drawings and specifications on file with J. J. Byrne, Building Inspector.

Pneumatic Machinery.—Bureau of Supplies and Accounts, Navy Department, Washington, D. C.—Bids until June 12, for furnishing and installing furnaces and blowers and delivering coke; band saw, gate shear, boring, punching, pneumatic riveting and rotary scarfing machines at navy yard, Norfolk. Apply for proposals to supply officer, navy yard, Norfolk, or to Bureau.

Power Plant.—See Peanut Factory Equipment, etc.—Earl Cogdell.

Pulverizer (Velvet Bean).—Rowland & Co., Augusta, Ga.—Velvet bean pulverizer.

Pump.—Macklock Lumber Co., Buchanan, Va.—Second-hand steam pump of small size to use in connection with 25 H. P. engine for pumping feed water from source of supply to tank near engine; a lift of possibly 40 ft.

Pumps.—Navy Dept., Bureau Supplies & Accounts, Washington, D. C.—Two single acting air circulating pumps; delivery Philadelphia; Schedule 1195.

Rails.—McEwen Lumber Co., Azalea, N. C.—1500 lin. ft. 60 or 70-lb. relaying iron for delivery at Norfolk.

Rails, etc.—Brier Hill Collieries, Monterey, Tenn.—Minimum car-load of new or relay 30-lb. section rail, for immediate shipment, Crawford, Tenn.; also 200 angle bars or fish plates 60 lbs. Carnegie 60H 5-8-5 punch, standard section, 4-hole, 24 in. long; oval holes for 3/4-in. bolts, slotted 2 1/2 in. to 15 in. to 6 1/2 in. for 9/16-in. spikes.

Road Construction.—Comms. Jefferson County Road Improvement Dist. No. 14, D. B. Niven, Chrmn., Pine Bluff, Ark.—Bids until June 20 to construct 40 mi. bituminous macadam roads; proposal forms, plans, specifications, etc., on file with Humphreys & Tovey, Engr., 416 Citizens' Bank Bldg., Pine Bluff, may be obtained for \$10.

Road Construction.—Johnson County Pike Com., H. A. Donnelly, Secy., Mountain City, Tenn.—Bids until June 14 to grade and macadamize 35 mi. road; profiles and specifications on file with Mr. Donnelly.

Rods (Sucker).—See Pipe, Tubing, etc.—Gooding-Keith Oil Co.

Rods (Silo), Lugs and Nuts.—Interlocking Cement Stave Silo Co., D. B. English, Mgr., Haskell, Okla.—Prices on 3/4-in. silo rods; 3/4-in. lugs; hexagon nuts.

Roofing.—See Building Materials.—Crump Construction Co.

Roofing (Iron).—Azalea, N. C.—New or second-hand galvanized iron roofing.

Rope (Wire).—See Mining Equipment.—Anjean Coal Co.

Sawmill Machinery.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on second-hand and rebuilt 32-in. bandsaw; 6x24, 10x18x24, or 10 to 12x24 second-hand 4-sided planer; rip saw; swing cut-off saw.

Saw and Stave Mill Machinery.—Forest Glen Orchard Co., Winchester, Va.—Prices on saw and stave mill machinery.

Sewer Construction.—City of Bryan, Tex., John M. Lawrence, Mayor.—Bids until June 8 to construct sewage-disposal plant and main sewer from city to plant; plans and specifications from R. T. Smith, City Secy., for \$10.

Shears, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 19 for delivering sheet copper and double angle shears at navy-yard, Charleston, S. C. Apply for proposals to supply officer, navy-yard, Charleston, or to Bureau.

Shovel (Steam).—Box 412, Welch, W. Va.—Good used revolving Marion, Bucyrus or Erie steam shovel; quick delivery.

Sluiceway.—Directors Obion River Drainage Dist. No. 1, Union City, Tenn.—Bids until June 21 to construct reinforced concrete sluiceway 73 ft. long, 14 ft. wide and 5 ft. deep over all, 4 or 5 single gate and 1 double gate reinforced concrete manholes; lump sum bids received separately for sluiceway and each manhole; plans and specifications on file with County Judge, Courthouse, and with Morgan Engineering Co., Memphis; obtainable from A. F. Estes, Obion.

Stoves.—See Electric Range.

Street-cleaning Equipment.—Office Commissioners D. C., Room 509 Dist. Bldg., Washington, D. C.—Bids until June 12 to furnish gasoline motor squeegee for cleaning streets; proposal forms and specifications from Purchasing Office, D. C., 230 Dist. Bldg.

Tanks (Storage).—See Peanut Factory Equipment.—Earl Cogdell.

Tipples.—See Mining Equipment.—Anjean Coal Co.

(Continued on Page 100.)

Capital and Surplus
\$4,000,000



Total Resources
\$38,000,000

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Liberal Accommodations to Manufacturing Corporations

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March 30, 1915, Surplus and Profits,
\$850,000.00.
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SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

Maryland Trust Company

BALTIMORE

Capital \$1,000,000

TRANSACTS A GENERAL TRUST AND
BANKING BUSINESS

Correspondence and Interviews
Invited

**The Palmetto National Bank
OF COLUMBIA**
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Surplus and Undivided Profits \$250,000.00
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FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ark., Junction City.—First National Bank of Junction City, capital \$25,000, to succeed the Union Bank & Trust Co., Junction City, has made application for charter.

Ga., Lytle.—Bank of Oglethorpe of Lytle has made application for charter; capital \$5000; incorporators, Charles A. Lyerly, Z. C. Patten, Jr., and Milton B. Ochs of the New York Times.

N. C., Madison.—Farmers Deposit & Trust Co. has made application for charter; capital \$10,000.

Okla., Okmulgee.—Central National Bank, capital \$100,000, surplus \$10,000, will soon begin business. D. M. Smith, Pres.; T. J. Baker and W. D. Pine, V.-P.'s; H. E. Kennedy, Cash.

Tex., Dallas.—A new trust company capitalized at \$3,000,000, with \$750,000 surplus, is being organized by A. A. Cocke, Harry W. Parker, A. Ragland and others.

Tex., Houston.—Zeigler Brokerage Co. is chartered; capital \$3000; incorporators, J. A. Zeigler, W. C. Stansfield and C. W. Zeigler.

Tex., Houston.—Conservation Savings and Loan Association, 1218 Carter Bldg., chartered; capital \$1,000,000; incorporators, T. J. Arnold, F. W. Fraley, U. C. Coolgrove, J. T. Patterson and C. H. Johnston.

Tex., Matador.—First National Bank of Matador is chartered, capital \$30,000. Organizers: Chas. E. Waite, R. P. Moore and C. P. Waybourne and I. F. Fish. Business began May 29.

Tex., Tyler.—Boren Abstract Co., capital \$15,000, incptd. by O. M. Boren, J. B. Parker and Walter Connelly.

Va., Richmond.—State Corporation Commission is chartered, capital \$25,000; Henry W. Anderson, Pres.; Thomas B. Gay, Richmond, V.-P.; George H. Taylor, New York City, Secy.-Treas.

NEW SECURITIES

Ala., Birmingham.—(School).—\$250,000 of 6½ per cent. 30-year \$1000 denomination bonds, dated June 1, 1917, were purchased at par by the city sinking fund.

Ala., Carrollton.—(Warrants).—At 11 A. M. June 11 Pickens County Commrs. will sell \$130,000 of 6 per cent. warrants. Address County Commrs.

Fla., Jacksonville.—(Bridge).—Election is to be held July 10 to vote on \$350,000 of 5 per cent. 30-year \$1000 denomination bonds for bridge across St. Johns River. Address The Mayor.

Fla., Miami.—(School).—\$150,000 of 6 per cent. 20-year bonds Miami special tax school district No. 2, Dade County, are voted. R. E. Hall is Supt. County Board of Public Instruction.

Fla., Tampa.—(Road, Bridge).—No sale was made May 29 of the \$100,000 of 5 per cent. 30-year \$1000 denomination bonds of Citrus Park Special Road and Bridge Dist., Hillsborough County, offered on that date. Commissioners have taken no further action in the matter, have not re-advertised and will probably not until conditions throughout the country are more favorable. W. P. Calbreath is Clerk County Commrs.

Ga., Montezuma.—(Paving).—\$25,000 of 4½ per cent. 20-year \$1000 denomination bonds are voted. J. E. Reed is Mayor.

Ga., Bostwick.—(School).—Bids are being received for \$10,000 of 5 per cent. \$1000 denomination bonds maturing \$1000 per year, 1928 to 1947, inclusive. Address R. E. L. Snelson.

Ga., Savannah.—(Water-works).—Arrangements are being made to hold an election to vote on \$500,000 of bonds. Wallace J. Pierpont is Mayor.

Ky., Princeton.—(Road).—\$225,000 Caldwell County bonds defeated.

La., Abbeville.—(School).—\$20,000 of 5 per cent. \$500 denomination Kaplan School Dist. Vermillion Parish, bonds are voted. Address J. H. Williams, care of Parish School Board.

La., Lake Providence.—(Highway).—Bids will be received until 2 P. M. July 11 for \$100,000 of 5 per cent. bonds East Carroll Parish. C. S. Wyly is Secy. of the Police Jury.

La., Port Allen.—(School).—\$10,000 of bonds School Dist. No. 2, West Baton Rouge Parish, are voted. Address Police Jury.

Md., Hagerstown.—(Sewer).—Bids will be opened at 11 A. M. June 12 for the following 4½ per cent. bonds maturing July 1, 1929, to July 1, 1935, inclusive: 70 bonds of \$100 denomination, 56 bonds of \$500 denomination and 165 bonds of \$1000 denomination. Wm. Logan is tax collector.

Miss., Coffeeville.—(Road).—\$45,000 of 5 per cent. 10-year Yalobusha County bonds have been purchased by Powell, Garard & Co., Chicago and New Orleans.

Miss., Fayette.—(Municipal Improvements).—\$17,000 of bonds are voted. Address The Mayor.

Miss., Magnolia.—(School).—\$30,000 Pike County bonds are voted for establishing agricultural high school at Godbold's Mineral Wells. Address County Commrs.



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TOLEDO, OHIO

Miss., Meridian—(School).—Election is to be held June 29 to vote on \$10,000 of school improvement bonds. Address School Board.

Miss., Senatobia—(School).—\$17,500 of bonds Tate County have been purchased by the Peoples Bank, Senatobia.

Mo., Brunswick—(City Hall).—\$10,000 of bonds are voted. Address The Mayor.

Mo., Kansas City—(School).—\$2,000,000 of 3-year \$100 and \$1000 denomination bonds are voted. Dated July 2, 1917; maturity July 2, 1937; interest not exceeding 4½ per cent. Hale H. Cook is Pres., and J. B. Jackson, Secy. School Dist. of Kansas City.

Mo., Liberty—(County Bonds).—\$1,250,000 of Clay County bonds have been declared valid by State Supreme Court. County Court has taken no steps to issue the bonds. Edgar Archer is County Clerk.

Mo., St. Joseph—(City Improvement).—Election is to be held June 26 to vote on \$50,000 of 4½ per cent. improvement bonds, maturing \$100,000 Sept. 1, 1927, and \$490,000 Sept. 1, 1937, subject to call at any time. P. Lemmon is City Compt.

N. C., Edenton—(School).—\$10,000 of Edenton Graded School Dist. bonds to be voted on June 30 are 30-year, not exceeding 6 per cent., \$100 or \$500 denomination. Address J. R. McMullin is City Clerk. E. R. Conger is Mayor.

N. C., Louisburg—(Township Bonds).—Bids will be received until 2 P. M. June 11 by J. D. Alston, Chrmn. Board Commrs., Franklin County, for the following bonds: Durns Township, \$20,000; Cedar Rock Township, \$500.

N. C., Lumberton—(Refunding).—Bids will be received until noon June 18 for \$51,000 of 5 to 5½ per cent. bonds. Ira B. Townsend is Clk. and Treas. Further particulars will be found in the advertising columns.

N. C., Marion—(Road).—\$50,000 of 5½ per cent. 30-year \$500 denomination North Cove Township Road Com., McDowell County bonds, dated Feb. 22, 1917, are to be issued. W. M. McNairy is Atty.

N. C., Plymouth—(School).—\$15,000 of 20-year Creswell High School Dist., Washington County, bonds have been awarded at \$15.77 to Sidney Spitzer & Co., Toledo.

N. C., Raleigh—(School).—Bids will be opened at noon June 25 for \$10,000 of 5 per cent. 20-year \$500 and \$1000 denomination bonds Wendell Graded School Dist., Wake County; dated July 1, 1917; maturity July 1, 1937. Address Board County Commrs., G. M. Giles, Supt.

N. C., Salisbury—(Street).—\$75,000 of 5 per cent. 10-year \$1000 denomination bonds have been purchased at 100.21 by Harris, Forbes & Co., New York.

N. C., Shelby—(School, City).—Bids will be received until 11 A. M. June 20 by G. P. Webb, City Clerk, for the following bonds: \$15,000 school; \$17,000 city.

N. C., Washington—(Drainage).—Bids will be opened June 18 for \$400,000 of 6 per cent. bonds Albemarle Drainage Dist., Beaufort County Drainage Dist. No. 5. Address F. D. Hackett, Jr., Secy.

N. C., Windsor—(School).—At noon, June 7, at public sale \$15,000 of 6 per cent. bonds

Aulander Graded School Dist., Bertie County, will be offered. J. Laurence Harrington is Chrmn. School Board of Aulander Graded School, and Herbert Jenkins, Secy.

N. C., Troy—(Road).—Bids will be received until 10 A. M. June 15 by W. L. Wright, Clerk Board of Commrs., Montgomery County, for \$30,000 of 5 per cent. 30-year bonds.

Okla., Ada—(Sewer, Water).—\$25,000 additional sewer and \$75,000 water-works bonds are voted. Address The Mayor.

Okla., Commerce—(School).—Plans are being made to hold an election to vote on \$10,000 of bonds. Address Board of Education.

Okla., Red Rock—(Water-works).—Bids will be received until 8 P. M. June 11 for \$22,000 of 6 per cent. \$1000 denomination bonds, dated July 1, 1916, and maturing 1921 to 1941, inclusive. Clyde Cady is Town Clerk.

Okla., Shawnee—(School).—\$25,000 of the \$30,000 of 5 per cent. \$1000 denomination Special School Dist. No. 53 bonds, voted May 10, 1917, have been purchased at 103½ by Robinson & Taylor, Oklahoma City. W. M. Gallaher is Clerk Board of Education.

S. C., Kingstree—(School).—Plans are being made to place on the market \$2250 of 20-year, not exceeding 6 per cent., bonds Vox School Dist. No. 42, Williamsburg County, dated June 1, 1917; denominations to suit purchaser. Address Leroy Lee, Atty.

S. C., McCall—(School).—Bids will be opened June 11 for \$15,000 of 5 or 6 per cent. 20-year McCall School Dist. bonds, voted May 25. J. R. Bivens is Chrmn. School Board.

Tenn., Columbia—(Funding).—Bids will be received until 7 P. M. June 15 for \$50,000 of 5 per cent. 20-year bonds, dated June 1, 1917, and maturing June 1, 1937; denomination, \$1000. J. M. Dedman is Mayor and E. E. Erwin, Recorder.

Tenn., Johnson City—(School, Courthouse, Market, Sewer).—Bids will be received until 7 P. M. June 21 for the following 5 per cent. bonds, dated June 1, 1917: \$50,000 of 20-year school, \$75,000 of 30-year courthouse and market-house, and \$11,000 of sewer, short term. W. E. Hatcher is City Treas. Further particulars will be found in the advertising columns.

Tenn., Maynardville—(Road, Bridge).—\$50,000 of 6 per cent. 10-year road and bridge, Union County, bonds offered May 21, were not sold. Geo. N. Taylor is County Judge.

Tenn., Springfield—(Water).—\$35,000 of 5 per cent. 4-15-year bonds have been awarded to Jas. E. Caldwell & Sons, Nashville, for \$36,170 and interest.

Tex., Austin—Bonds approved by Atty. Gen.: \$20,000 Mineral Wells funding warrants; \$4000 Floyd County common school dist.; \$3500 Red River County common school dist.

Tex., Beaumont—(Channel Deepening).—Steps are being taken to hold an election to vote on \$300,000 bonds Beaumont Navigation Dist., Jefferson County. Address County Commrs.

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MARYLAND

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Tex., Breckenridge—(School).—\$13,000 of bonds Breckenridge Independent School District, Stephens County, are voted. Address School Board.

Tex., Clint—(School).—Election June 1 on \$15,000 of bonds. Address Judge E. B. McIntock.

Tex., Corsicana—(School).—Plans are being

made to hold an election to vote on \$250,000 of bonds. Address School Board.

Tex., Gorman—(Street).—\$10,000 of 5 per cent. 20-40-year \$100 denomination bonds are voted and bids for same will be opened about June 10. Address J. B. McEntire.

Tex., Pittsburg—(Road).—Election is to be held June 23 to vote on \$35,000 of 5 per cent. 20-40-year \$1000 denomination bonds Road Dist. No. 2, Camp County. J. L. Turnage is Clerk County Court, and C. Everett Bryson, County Judge.

Tex., Sherman—(School).—\$30,000 bonds are voted. Address School Board.

Tex., Vernon—(School).—School Districts of Willbarger County have voted bonds as follows: Wild Cat, \$1000; Farmers Valley, \$3000; Crescent Cove, \$3500; Lockett, \$3000. Address County School Board.

Tex., Whitney—(Waterworks).—\$15,000 of 5 per cent. 10-40-year bonds have been purchased by J. E. Jarratt & Co., San Francisco.

FINANCIAL NOTES

The Bank Commissioner of Maryland reports for the 16 State banks and trust companies in Maryland (including branches) for May 1 total resources of \$185,477,447, an increase of \$3,565,891, as compared with the last call on March 5 of this year and an increase of \$24,159,551 as compared with the call of May 1, 1916. March demand deposits increased \$6,374,744, and since May of last year they increased \$19,804,047. Time deposits in the latter period increased \$5,334,106.

The Comptroller of the Currency reports for all national banks in the United States as of May 1 total deposits \$13,075,000,000, the greatest total ever shown, and exceeding by \$118,000,000 total deposits on March 5, 1917, and by \$1,944,000,000 total deposits on May 1, 1916. Total resources on May 1, 1917, were \$16,144,000,000, an increase since March 5 of \$165,000,000, and since May 1 of last year of \$1,948,000,000. There were also very large increases in loans and discounts.

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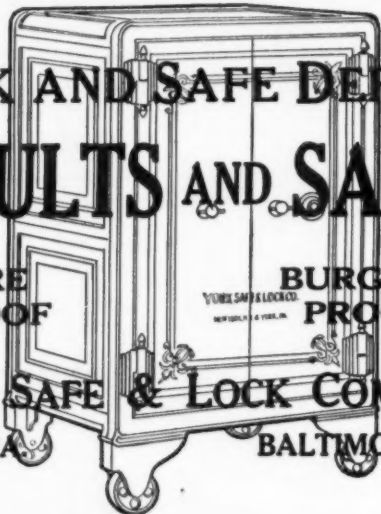
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"We are sorry we cannot accept the large order received today, but our plant was completely wiped out by fire yesterday. It will be at least three months before we are in a position to manufacture."

That's it—you may get back every cent your plant was worth from your insurance, but!

Don't wait—investigate a reliable Watch-Clock System.

Protection every second.

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(Continued from Page 97.)

MACHINERY, PROPOSALS
AND SUPPLIES WANTED

Towing Machine, etc. — Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 19 for delivering brass, automatic steam towing machine and steam windlass at navy-yard, Boston. Apply for proposals to supply officer, navy-yard, Boston, or to Bureau.

Twine (Binder). — J. Poitevent, Ocean Springs, Miss.—Addresses of manufacturers of binding twine.

RAILROAD CONSTRUCTION

RAILWAYS

Fla., Hastings.—Plans are being considered for the construction of a railroad about 3 mi. long from a connection with the Florida East Coast Railway to Federal Point. G. W. Waller is Chmn., and E. S. Hubbard, Secy., of the railroad committee.

Fla., Tampa.—Proposed line of the Tampa, Atlantic & Gulf Ry. Co. will be about 285 mi. long from Tampa to the eastern coast of Florida, and also to the Gulf coast. It will require 7 drawbridges from 50 to 75-ft. span and about 6 mi. of concrete protected trestle in three bridges. General contract let. Sub-Walker, Prest.; F. M. Williams, V.-P.; Edward Walker, Secy. and Treas., at Tampa. C. G. Young is Ch. Engr., 14 Wall St., New York.

Fla., Wauchula.—Construction of the eastward extension of the Wauchula, Atlantic & Gulf Railway has been started by the Wauchula Development Co. of which Homer B. Rainey is V.-P. and Mgr. Already 8 mi. are in operation from Wauchula west to Vandolah on the Charlotte Harbor & Northern Railway. It is standard gauge and will be altogether 22 or 23 mi. long.

Ga., Augusta.—Georgia R. R. proposes to build a branch to the military encampment, and has acquired a 6-mi. right of way. C. A. Wickersham, Augusta, is Gen. Mgr.

La., Covington.—Baton Rouge, Hammond & Eastern R. R. (Illinois Central System) will, it is reported, be extended from Covington, La., to Gulfport, Miss., about 55 mi. A. S. Baldwin, Chicago, Ill., is Ch. Engr.

La., Charenton.—New Iberia & Northern R. R., it is announced, will be extended from Charenton to Patterson, La., about 20 mi., and it is contemplated to extend from Patterson to Morgan City, about 4 mi. more. A. T. Perkins, 401 Locust St., St. Louis, 19 Prest.

La., Garyville.—W. K. Fairfield is Prest., and E. S. McDaniel, Gen. Supt., of the Garyville & Northern Railroad which is being built by the Lyon Lumber Co., from Garyville, 35 mi., to a connection with the Baton Rouge, Hammond & Eastern Railroad, near Doyle, La. It may be operated within two months.

Mo., Mexico.—The Atchison, Topeka & Santa Fe Ry., it is reported, is planning to build a line from Mexico to St. Louis, about 95 mi., and from Mexico to Carrollton, about 90 miles. Work is to begin as soon as right of way is secured. R. A. Rutledge is Ch. Engr. Eastern Line, Topeka, Kans.

Okla., Ralston.—Bids for the construction of the Osage County & Santa Fe Railway from Ralston to Owen, Okla., about 62 mi. will, it is reported, be received in about 30 days. C. F. W. Felt, Chicago, Ill., Chief Engr. of the Santa Fe System can give information.

Wagons. — John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on 6 or more engine-drawn bottom-dump wagons, 3½ to 6-yd. or more capacity.

Water-power Equipment. — See Hydroelectric Plant Materials, etc.—Oklahoma Power & Transmission Co.

Water-works Equipment. — City of Red Fork, Okla., W. E. Kerr, Clerk.—Prices on pumps, hydrants, gas engine, and 4-in. and 2-in. main.

Woodworking Equipment. — Neel Bros., Thomasville, Ga.—Data and prices on machinery for manufacturing nail kegs, lime barrels, staves, etc.

Okla., Tulsa.—St. Louis & San Francisco Railroad proposes to build additional tracks in Tulsa in connection with freight station improvements. F. G. Jonah, St. Louis, Mo., is Chief Engr.

S. C., Columbia.—Atlantic Coast Line has begun construction of the spur from Simms Station to the Government camp near Columbia.

Tenn., Dunlap.—Chattanooga Iron & Coal Corp. is asking bids for the construction of about 5 mi. of railroad in Sequatchie county. C. O. Dietz is Ch. Engr.

Tex., Denton.—Bids are being received for the construction of the Dallas Northwestern Traction Co.'s railway from Dallas to Denton and Sildell, Tex., 58 mi., by the Standard Utilities Construction Co., represented at Denton by A. V. de Pascale. A. E. de Mayo is V.-P. and Gen. Mgr.

Tex., Dallas.—Construction is expected to begin soon on the Dallas Southwestern Traction Co.'s proposed line from Dallas to Irving and Cleburne, Tex. E. P. Turner of Dallas is Prest. Engineers are at work on the right of way. Creek Construction Co. of Sapulpa, Okla., is to build and equip the road. J. O. Lytle, Prest., and George A. Kadline, Supt., at Sapulpa.

Tex., Marshall.—At the Courthouse door of Harrison County, July 3, the franchise and charter rights of the Marshall & East Texas Ry. will be offered for sale, together with its roadbed, right of way, track, terminals, rolling stock, etc. Address H. B. Marsh, Special Commr., Tyler, Tex.

Tex., Rosenberg.—Gulf, Colorado & Santa Fe Railway has not yet decided upon construction of the contemplated branch to the Damon oil fields. F. Merritt, Galveston, Tex., is Chief Engr.

Tex., San Benito.—San Benito & Rio Grande Valley Railway, it is reported, will build an extension to connect with the San Antonio, Uvalde & Gulf Railroad, near Fairfairs, S. A. Robertson, San Benito, is Prest.

Va., Louisa.—Mineral Belt Railway Co. capital \$50,000, which proposes to build a 10-mi. railroad in this (Louisa) county is chartered with Berkeley Williams, Prest., and H. H. Chakley, Secy., both of Richmond, Va.

STREET RAILWAYS

Md., Baltimore.—United Rys. & Electric Co. contemplates building extension from Stone House Cove to Wagner's Point, about 1 mi. T. A. Cross is Prest.

S. C., Columbia.—Columbia Railway, Gas & Electric Co. will build immediately a double-track extension 4 mi. long, from Columbia to the Government camp site. A. L. Kenyon is Gen. Mgr.

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20-Year Guaranty

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and that the roofing contractor shall be approved by us.

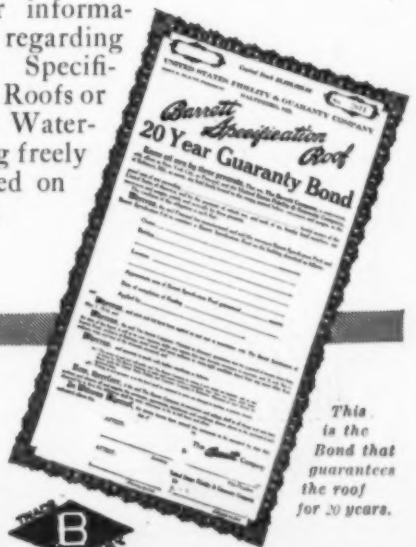
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You can secure exactly the same roof on your building as covers the Equitable and other huge structures throughout the country, by simply stating to your architect or roofing contractor that you wish your roof constructed in strict accordance with The Barrett Specification dated May 1, 1916, and requesting him to deliver to you a 20-Year Surety Bond upon completion of the job.

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Barrett Specification Pitch - and - Felt Waterproofing also does service in the great Equitable Building. Over 200,000 square feet are in use to protect the bank vaults, kitchens, refrigerators, pits, etc., as well as underneath and around the deep cellars that penetrate to a depth of fifty-two feet below Broadway—far below the level of the neighboring tides.

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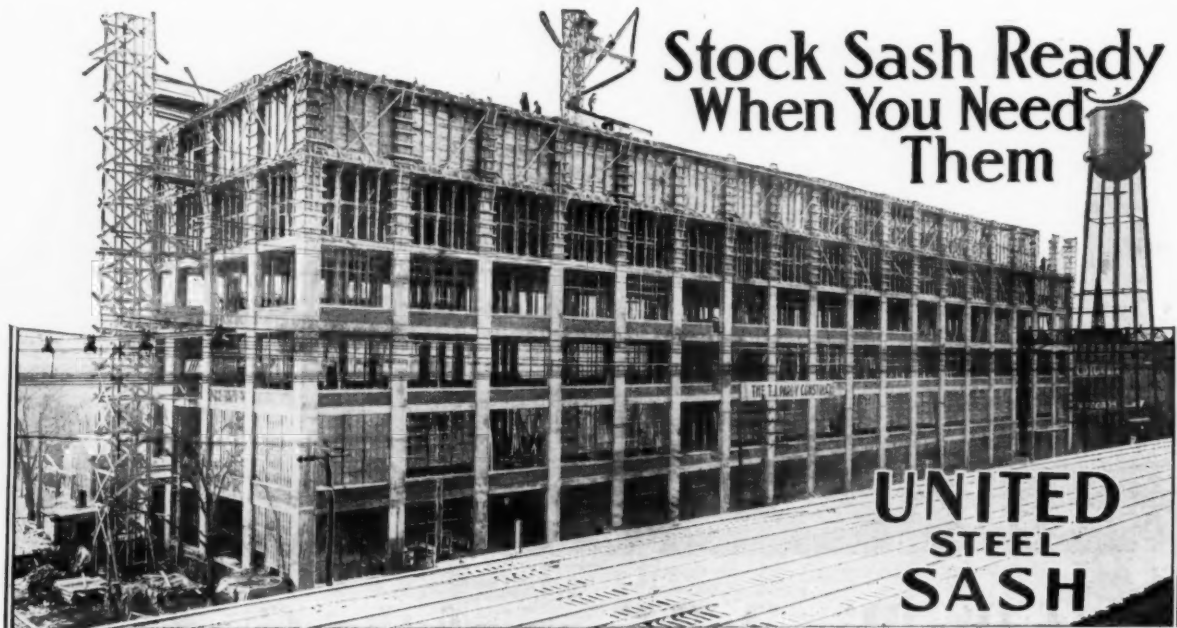


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Table of Widths of Window Openings

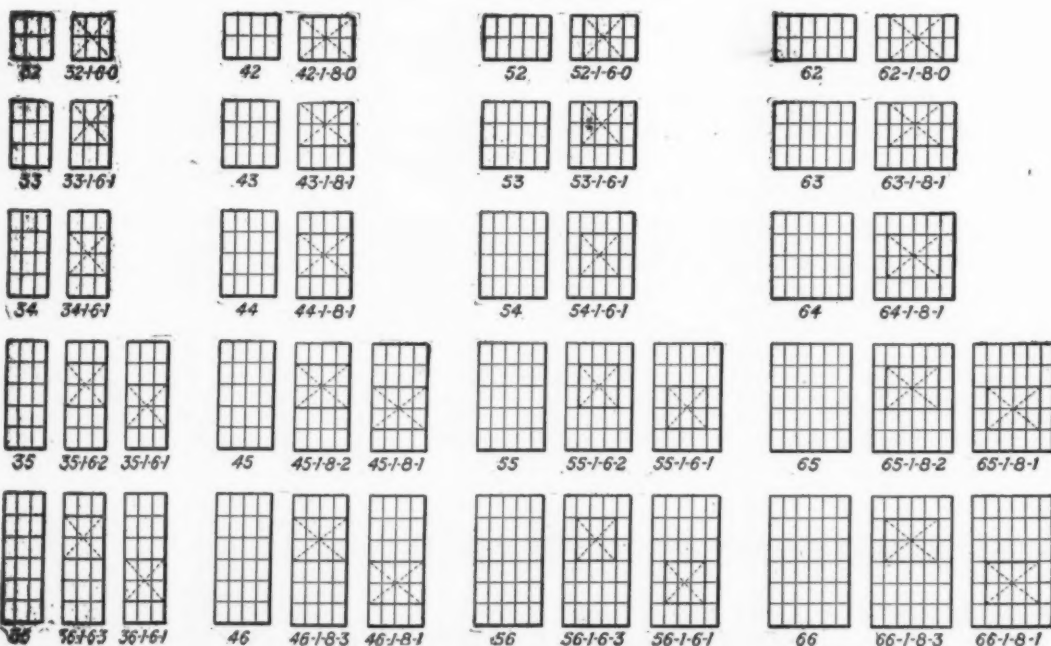
Width of Window Op'gs.	Size of Glass.	Total Lights Wide.	No. Sash Units.
3' 3"	12x18	3	1
3' 9"	14x20	3	1
4' 3 1/2"	12x18	4	1
4' 11 1/2"	14x20	4	1
5' 4"	12x18	5	1
5' 10"	14x20	5	1
6' 4 1/2"	12x18	6	1
6' 10 1/2"	14x20	6	1
7' 4 1/2"	12x18	7	1
7' 10 1/2"	14x20	7	1
8' 4"	12x18	8	1
8' 10"	14x20	8	1
10' 0 1/2"	12x18	10	1
10' 6 1/2"	14x20	10	1
10' 10"	12x18	10	1
11' 4"	14x20	11	1
11' 10"	12x18	11	1
12' 2"	14x20	12	1
12' 8"	12x18	12	1
12' 14"	14x20	12	1
12' 18"	12x18	12	1
12' 24"	14x20	12	1
13' 2"	12x18	13	1
13' 8"	14x20	13	1
13' 14"	12x18	13	1
14' 2"	14x20	14	1
14' 8"	12x18	14	1
14' 14"	14x20	14	1
15' 2"	12x18	15	1
15' 8"	14x20	15	1
15' 14"	12x18	15	1
16' 2"	14x20	16	1
16' 8"	12x18	16	1
16' 14"	14x20	16	1
17' 2"	12x18	17	1
17' 8"	14x20	17	1
17' 14"	12x18	17	1
18' 2"	14x20	18	1
18' 8"	12x18	18	1
18' 14"	14x20	18	1
19' 2"	12x18	19	1
19' 8"	14x20	19	1
19' 14"	12x18	19	1
20' 2"	14x20	20	1
20' 8"	12x18	20	1
20' 14"	14x20	20	1
21' 2"	12x18	21	1
21' 8"	14x20	21	1
21' 14"	12x18	21	1
22' 2"	14x20	22	1
22' 8"	12x18	22	1
22' 14"	14x20	22	1
23' 2"	12x18	23	1
23' 8"	14x20	23	1
23' 14"	12x18	23	1
24' 2"	14x20	24	1
24' 8"	12x18	24	1
24' 14"	14x20	24	1

Trussed Concrete Steel Co.

Steel Sash Dept. S-16

Youngstown, Ohio

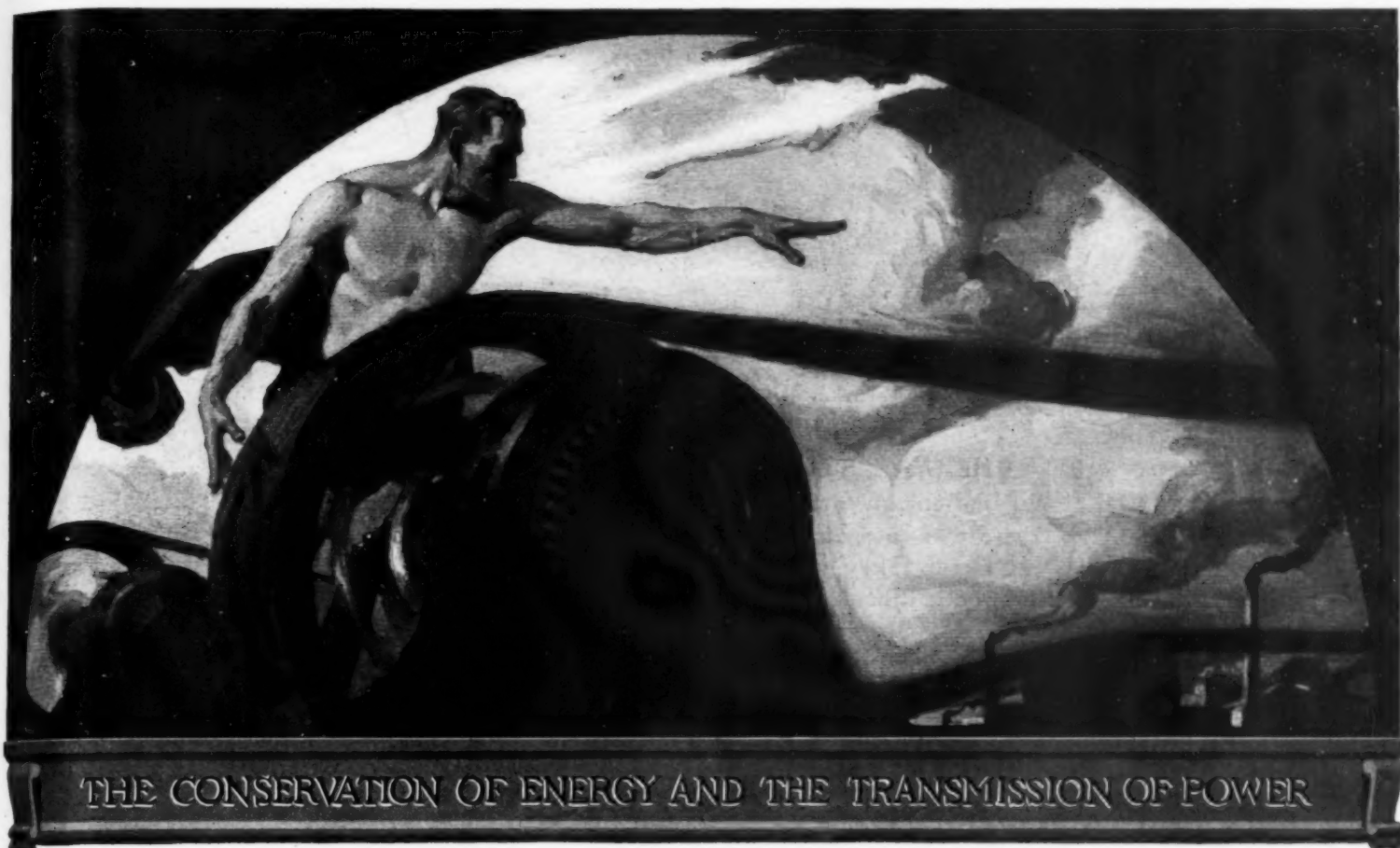
Representatives in Principal Cities



Stock sizes of United Steel Sash.
Furnished in two glass sizes, 12" x 18" and 14" x 20".

Table of Heights of Window Openings

Height of Window Op'gs.	Size of Glass.	Total Lights High.	No. Sash Units.
3' 2"	12x18	3	1
3' 6"	14x20	3	1
4' 8 1/2"	12x18	4	1
5' 2 1/2"	14x20	4	1
6' 3"	12x18	5	1
6' 11"	14x20	5	1
7' 9 1/2"	12x18	6	1
8' 7 1/2"	14x20	6	1
9' 4"	12x18	6	1
10' 4"	14x20	6	1



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If Blue Streak Belts had required a score or more years to win the amazing reputation already theirs, their honest quality would seem impressive but their surpassing merit would not be as plain.

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They quickly displaced belts constructed on the failing theory that extraordinary tension is the only way in which a belt can get an adequate pulley-grip.

For such tension shortens the life of belting, wears out bearings, strains shafting.

They quickly displaced belts constructed on the theory that belting material must be either perforated or dressed in order to grip the pulleys.

Blue Streak Belts need no dressing.

Blue Streak Belts hug the pulleys without being "stretched on."

Blue Streak Belts have a friction surface which masters the air-film evil.

Blue Streak Belts have a maximum pulley contact because of their superior pliability.

In consequence they hug the pulleys and save power.

Their swift success is undoubtedly due somewhat to the high price of inferior leathers, which never last as long.

It is undoubtedly determined partially by the almost prohibitive price of honest leather.

It is also undoubtedly caused by the fact that no leather can give exactly the same power-saving service that Blue Streak Belts give.

Their price may be higher than that of inferior non-leather belts, but their cost is lower.

Per dollar of cost they give longer service and better service.

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Akron, Ohio

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GOOD YEAR
AKRON

Step Into the Ranks!

THE United States is at war with one of the most powerful nations on earth. The American people have reluctantly drawn the sword in a cause that is eternally and gloriously right. They have dedicated themselves to the task set by the prophetic Lincoln in the words:

"We here highly resolve that * * *
government of the people, by the
people, and for the people shall
not perish from the earth."

In a few days half a million of American youths will be called upon to put aside their hopes and their employments and prepare to make the supreme sacrifice already made by millions of our allies. Our country asks these boys to give their all, and they will do so without hesitation and without complaint. It should not be necessary to ask others to do their part.

Unlimited money must be provided if these American boys are not to die in vain. This the Government now asks the people to provide. They are not asked to give it, but to lend it for use in this great cause. When the American people appreciate the situation they will need no urging.

In subscribing for three million dollars of the Liberty Loan this company has done what it conceives to be its plain duty. Many other industrial corporations have taken such portions of it as their resources will allow, and still others will doubtless be heard from.

Nevertheless, since it is important that this vast fund be drawn largely from funds not actually in use, and that as much of it as possible may be derived from current savings, all citizens should contribute. Participation in the Liberty Loan will prove to every American a personal benefit as well as a patriotic duty, for it will stimulate thrift and promote a sense of duty performed.

To give publicity to these facts and thereby encourage a more general participation in the Liberty Loan, which is a most important part of the measures necessary to carry the war to a successful termination, are the purposes of this announcement. With unity and enthusiasm shown in this matter, such as have been displayed throughout the present emergency, our Government will be assured of immeasurable financial strength without the slightest interference with national prosperity.

THE YOUNGSTOWN SHEET & TUBE CO.
YOUNGSTOWN, OHIO



In order to give wide-spread publicity to the appeal of the President, these extracts from his Proclamation occupy the space of the Link-Belt Company, of Philadelphia, Chicago, Indianapolis, instead of their regular advertisement.

ARCHITECTS ENGINEERS CONTRACTORS

Detailed classification of specialized work undertaken by those
having cards in this Directory will be found in Classified Index.

MILBURN, HEISTER & CO. Architects WASHINGTON, D. C.	THE ARNOLD COMPANY Engineers—Constructors Electrical—Civil—Mechanical 105 South La Salle St. CHICAGO 111 Broadway NEW YORK	A. LANGSTAFF JOHNSTON, Jr., M.E., E.E. Mutual Building RICHMOND, VA. Southern Associate of MOSES, POPE & MESSER, Inc. Consulting Engineers Mech., Elect., Civil, Chemical and Industrial 386 Fifth Avenue NEW YORK HENRY WELLES DURHAM, C. E. Associated Highway and Municipal Engineer.	DOW & SMITH Chemical Engineers Consulting Paving Engineers A. W. Dow, Ph.B. F. P. Smith, Ph.B. Mem. Am. Inst. Ch. Engrs. Mem. Am. Soc. Civ. Engrs. Asphalt, Bitumens, Paving, Hydraulic Cement, Engineering Materials 131-3 E. 23d Street NEW YORK
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DANIEL B. LUTEN Designing and Consulting Engineer Reinforced Concrete Bridges exclusively. Associate Engineers in each State. INDIANAPOLIS, IND.	GEO. F. WESTON Member Am. Society Agricultural Engineers Preliminary Reports and Operating Plans for SOUTHERN AGRICULTURAL DEVELOPMENTS Soils, Drainage, Livestock and Cropping Twenty-seventh Year 36 East 23rd Street NEW YORK, N. Y.	WILLARD, BOGGS & CO. General Contractors Water Power Development. Railroad Con- struction. Buildings. SPARTANBURG, S. C.	L. A. GUERINGER M. Am. Soc. C. E. Civil Engineer VICTORIA, TEXAS
WILLIAM C. SPIKER, C. E. Mem. Am. Soc. Civ. Engrs. Consulting Engineer Reinforced Concrete and Structural Steel Buildings and Bridges. 1408-9 Candler Bldg. ATLANTA, GA.	CLARENCE W. MARSH Engineer Industrial Developments. Chemical and Electrochemical Plants. 101 Park Ave. NEW YORK CITY	KNIGHT & QUAYLE Consulting Engineers Water Works, Water Supply and Purification, Flood Prevention, Sewerage and Sewage Disposal, Municipal Sanitation and Wastes Utilization. Garbage Collection and Reduction, Supervision and Operation of Sanitary Works, Pumping Engine Efficiency Tests. Chemical, Biological and Mechanical Analyses, Reports, Valuations, Designs. 408 Times Building CHATTANOOGA, TENN.	H. E. MOLE Engineer Examinations, Estimates and Reports. Plans and Specifications. Lighting and Power Properties. 55 Liberty Street NEW YORK
C. W. HUMPHREY Consulting Engineer Designing—Financing—Construction— Operation. Electric Lighting, Power, Railway, Trans- mission, Hydro-Electric and Industrial Properties. 327 South La Salle Street CHICAGO	L. SCOTT TWOGOOD Civil and Sanitary Engineer. Steel and Reinforced Concrete Structures, Build- ings, Bridges, Industrial Plants, Viaducts. Water Supply, Water Purification, Sewerage Sys- tems, Sewage Disposal, Municipal Improvements. 1514-15 Bank of Commerce Bldg. MEMPHIS, TENN.	CHARLES T. MAIN Member A. S. M. E. Textile Mills WATER POWER DEVELOPMENTS 201 Devonshire Street BOSTON	ARCHITECTS ENGINEERS Your card on these pages will place you directly before the active forces of the South and Southwest.
HEDRICK & HEDRICK Consulting Engineers Bridges, Viaducts and other Structures of Steel and Reinforced Concrete. Interstate Building KANSAS CITY, MO.	S. CHESTER MARKLEY Consulting Sanitary Engineer Water Works, Sewers, Investigations of Epidemics. ROANOKE VIRGINIA	FREELAND-KLYCE ENG'G CO. Consulting Engineers Concrete and Steel Structures NASHVILLE, TENN.	F. ERNEST BRACKETT Civil and Mining Engineer Coal Mines, Water Works, Sewerage, Industrial Plants, Surveys and Reports. Clark-Keating Bldg. CUMBERLAND, MD.
			W. C. O'BRIANT Millwright General Mill Construction. Saw Mills a Specialty. Randolph Bldg. MEMPHIS, TENN.

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Southern work only. Have built over half of the Water, Light and Sewer Systems in Georgia and Alabama. We Design—Finance—Superintend. Bonds Purchased.

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Steel Works, Rolling Mills, Blast Furnaces, Hot Blast Stoves, Furnaces for All Purposes, Operated with Producer Gas, Natural Gas, Oil or Pulverized Coal. Coke Ovens, Gas Producers, Hand Operated or Mechanical.

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The unparalleled activity in every phase of industrial development of the Southern and Southwestern States is creating opportunity for technically trained men that are not surpassed by any section of America today.

Your card in the professional directory of the Manufacturers Record—for 35 years the leading exponent of Southern development—will keep your special line of work before the men who are in active charge of the South's industrial affairs.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Storage Warehouse Sites

Three storage warehouse sites at Norfolk, Va., are being offered for sale as announced in the advertising columns, their area being 33,000, 175,000 and 190,000 square feet respectively, and it is stated that they can be secured now on terms which would insure minimum storage rates for the purchasers. The best transportation facilities are at hand. The owner is inviting correspondence as to particulars.

Secretary Appointed.

The Walter A. Zelnicker Supply Co., St. Louis, and allied companies have secured the services of Charles H. Trapp, who is to act as confidential secretary to Mr. Zelnicker, the president. Mr. Trapp was formerly associated with James Stewart & Company in St. Louis and Denver; also in Idaho, and was lately with Terrell Croft, consulting electrical engineer, St. Louis. The Zelnicker Company has issued its bargain bulletin No. 215, containing many interesting offerings.

Branch Offices Temporarily Closed

The Asbestos Protected Metal Co., Pittsburgh, announces the temporary closing of its Atlanta and St. Louis offices. This is because J. R. Nichols, the Atlanta manager has entered the Officers Reserve Corps at Fort McPherson, Ga., and F. C. Easterby, St. Louis manager, has entered the Officers Reserve Corps at Fort Riley, Kans. Communications ordinarily going to those cities should therefore be addressed to the home office in the First National Bank Bldg., Pittsburgh, Pa., for immediate attention.

Tornado Did Not Stop This Business.

The H. W. Clark Company, Mattoon, Ill., manufacturers of the Clark meter box and water-works appliances, announces that although its large, modern factory was totally destroyed by the recent tornado, it is in a position to take care of all orders, and to render the usual prompt service, because its immense stock of finished product was undamaged by the storm. Furthermore, the company says that it will be manufacturing again in a few days. There has been scarcely a lull in its business, and shipments are going forward regularly.

Refrigerating Machinery Put In.

Vogt Brothers Manufacturing Company, makers of refrigerating, ice-making and pumping machinery, Louisville, Ky., announce that the Pittmans & Dean Company, Detroit, Mich., has added to its equipment two 80-ton safety ammonia compressors, furnished by the Vogt Company; also that the Vienna Model Bakery and Restaurant of Louisville will have its restaurant equipped with a 12-ton refrigerating plant, including a modern raw-water ice-making system, also furnished by the Vogt Bros. Mfg. Co.

Date of Lumber Sale Changed.

The date of sale of the Grandin Lumber Company's property at Wilkesboro, N. C., has been changed from June 25 to July 23. As previously announced the property consists of 472 tracts of land in Wilkes, Watauga and Caldwell counties, N. C., amounting to about 65,000 acres and containing very large quantities of merchantable timber of various kinds. A valuable mill is on the property. W. B. Council of Hickory, N. C. and R. W. Winston of Raleigh, N. C., commissioners appointed to conduct the sale, will furnish further information on request.

Steel Company Branch in Canada

Canadian purchasers of steel products will be interested to learn that the Pittsburgh-Des Moines Steel Co., formerly the Des Moines Bridge & Iron Co., with works at Pittsburgh, Pa., and Des Moines, Iowa, has recently established a new plant at Chatham, Ontario. This branch is known as the Canadian Des Moines Steel Co., Ltd., and it has bought the property of the Chatham Bridge Co., Ltd., which it has enlarged and completely equipped for the

manufacture of all standard types of steel structures, including mill buildings, office buildings, fire escapes and bridges. It will also manufacture and erect as it does through its other plants, elevated steel tanks and other special structures such as standpipes, storage tanks, smoke stacks, ladders and cooling stations.

Southern Company Builds Sulphuric Plant For Norway

The broadening activities of many Southern enterprises are strikingly illustrated in a contract which the Chemical Construction Company of Charlotte, N. C., is completing for a customer in Norway. This contract covers one complete sulphuric acid chamber plant, one concentrating plant, and one sulphuric acid waste recovery plant. There are several features of these plants regarding new methods for the purpose of recovering waste acids and concentrating same, which if they prove successful, as the company believes, will be of more than usual interest to the chemical industry of this country. The Chemical Construction Company is said to be the only concern of its kind in the United States that designs and builds sulphuric acid and other acid plants complete and it has done some notable work in all parts of the country in their design and construction.

Greater Success After Moving South

The United Dealers Buying Co., Norfolk, Va., manufacturer of Jasmine ink, paste and mullage, which was formerly located in the State of New York, reports that after opening a branch at Norfolk three years ago it opened a factory there 18 months ago and found so many advantages in railroad and water transportation service that it decided to locate there permanently, removing its entire plant from New York. The company further says: "We find that we can make and ship our inks the year round. We have been able to ship our products to Chicago and the Middle West in better time from Norfolk than from New York State. Furthermore, our trade with railroads, banks and factories in the South has so developed and increased that we must enlarge our plant to keep up with the demands." It is stated that the company will be reorganized as the Jasmine Ink Co., Inc., with Southern capital interested.

Export Engineering and Contracting.

America's entrance into the field of export engineering and contracting, which marks an epoch in her overseas trade development, has also attracted world-wide attention. Hitherto it has been England, France, and Germany which have seen to the mechanical upbuilding of new countries as they awakened to commercial industrial life, but now this country has come forward with its ability to afford complete and effective export engineering service. The American Steel Export Co., Woolworth Bldg., New York, for instance, is offering, through its export engineering and contracting department, a trained and specialized organization under the expert guidance of a chief engineer with 15 years' experience in directing such activities. The company has issued a booklet descriptive of its work in the construction of all kinds of industrial plants, terminal facilities, refrigerating plants, fire department and other firefighting installations, etc., which will be sent on request.

Westinghouse Electric Wage Advance.

The Westinghouse Electric & Manufacturing Co. has just announced another advance in wages to its employees, which took effect May 16, and amounts to 10 per cent. This is but another of a number of raises in wages granted to the workmen in the shop, all of whom are affected by it as well as practically all of the office force, excepting a few of the higher salaried employees. These raises represent a general increase in a period of two years of practically 40 per cent. While the company has not made a practice of granting horizontal advances to its entire force, preferring to grant increases individually and based on the accomplishments of each person, the gradual

increase in the cost of living made it imperative that it should take action that would enable its employees to meet the changed conditions. It has also subscribed for a number of Liberty bonds, which it offers to its employees, permitting them to make payment in small monthly or semi-monthly instalments, and the amount of subscriptions which they have already made has been very gratifying.

Interlocking Hollow Brick.

C. L. Hutchinson, architect, 608 and 609 City Bank Bldg., Mobile, Ala., has invented and patented an interlocking hollow brick for the manufacture of which he expects to make arrangements soon. This brick is intended for the outside walls of residences, and the curtain walls of steel or concrete frame buildings, but it can be made in larger units for walls bearing heavy loads. It can also be used as hollow tile in used and stuccoed, and it can be made as a highly-finished brick. In fact, the inventor says that it is the hollow-tile wall and finished brick facing combined. The design, it is further stated, definitely breaks the mortar joint through the wall, and thus prevents seepage. It has all the advantages of hollow tile, and it does not have to be stuccoed or waterproofed. The two side beds of mortar provide a solid bed, and the inner shoulder also forms a solid bearing for the floor timbers to rest upon. Where heavy loads occur the inner cell could be filled with concrete. It does not require metal-joint hangers, nor does it need special units for jambs, bearing tile, etc. It also has an interlocking feature which is covered in the patent, and it can be manufactured of any plastic material and of any size.

TRADE LITERATURE.

Something That Will Be Appreciated

The Bauer Bros. Co., manufacturers of "Scientific" oil mill machinery, Springfield, Ohio, is issuing a memorandum paid good for one month and it proposes to distribute these pads regularly each month.

A Satisfactory Building Stone.

The Foster & Creighton Co., Nashville, Tenn., has issued a circular showing tests made on the Oolitic limestone which this company produces. The characteristics of the stone and its analysis are described and then follows a set of reports on comparative tests which were made to prove its excellent qualities as a thoroughly satisfactory building stone. Considerable quantities of the stone have been sold by the company for the erection of a number of important buildings. Copies of the circular will be sent on application.

Water Purification.

"Chlorination at Dunwoodie" is the title of a booklet issued by the Wallace & Tiernan Co., Inc., 137 Center St., New York, and the contents relate to the purification of the water supply of Greater New York City. The article is by T. D. L. Coffin, assistant engineer, New York Department of Water Supply, Gas and Electricity, Katonah, N. Y. It describes the installation of nine of the nineteen installations of W. & T. equipment in service on various branches of the city's water supply, and the reading matter is accompanied by appropriate and enlightening illustrations. Four more units have been installed at Kensico to treat all of the water passing through the new Catskill Aqueduct, and two more were placed in service at Mount Kisco to sterilize all the water flowing in the Kisco River. There are in various towns, cities, etc., altogether more than 550 installations of Wallace & Tiernan equipment.

Safety Fan for Passenger Cars.

The Safety Car Heating & Lighting Co. is offering a safety fan for passenger car service. This type of electric fan is said to be much more satisfactory than the ordinary bracket fan. It is placed in the ceiling of the car, there being about nine feet of spacing between the fans, which are described as directing the air at proper velocity to where it is needed in the car instead of being so arranged that passengers near them get too much breeze and those distant too little. A description of the new fan says that the air deflector consists of a series of small parallel planes

arranged in two sections within a circular band. These planes are so disposed at an angle to the air propeller as to direct the air movement into the form of a cone when the planes are rotated. The air is kept sufficiently agitated to be comfortable, without a steady blast of air in one direction alone. The address of the company is 2 Rector St., New York.

How to Erect Mill Construction Buildings

A book on the erection of "Heavy Timber Mill Construction Buildings" (That is its title.) published by the National Lumber Manufacturers Association is being distributed by the Southern Pine Association, New Orleans. It is from the pen of C. E. Paul, construction engineer, Chicago, and this special reprint is well printed and amply illustrated. "Mill construction", as the phrase is commonly employed means a type of building in which the interior framing and floors are of timber arranged in heavy, solid masses, with smooth flat surfaces so as to expose the least number of corners and also to avoid making concealed spaces which might be difficult to reach readily in case of fire. From this text the author tells how such buildings should be erected with incombustible walls and partitions and with automatically closing doors or hatchways to prevent the spread of fire. Much technical information is presented together with tables of value to builders.

Great Durability of Fine Brick Roads

"Modern Methods of Brick Pavement Construction" for roads and streets built with wire-cut lug brick is the name of a booklet issued by the Dunn Wire-Cut Lug Brick Co., Conneaut, Ohio, which also tells how the lug is made and why. It says that brick roads have existed in Holland and other European countries for more than 100 years. In Charleston, W. Va., an experimental stretch of brick paving, laid in 1870 on the main business street, was relaid in 1873 to change a grade, when additional brick pavement was also laid, and this remained in service until 1909. Since 1885 brick pavements have rapidly grown in favor. It is further stated, quoting from a Government bulletin, that the life of a well-constructed brick pavement cannot be estimated with any great degree of exactness, because no brick pavement constructed in accordance with the best modern practice has yet worn out. There are a number of handsome illustrations in the book, showing brick roads in different parts of the country.

Book Reviews.

Business Finance. By William H. Lough. Published by The Ronald Press Co., New York. Cloth-bound. 631 pages. Price \$3.

This book deals with every-day financial problems, and is a practical study of financial management in private business concerns. While in the main it is devoted to information on business conditions and financial practice in the United States, it also includes many references to the experience and practice in business and finance of other countries which may perhaps benefit and yield suggestions of value to American business men. The subject-matter of the book is divided into five parts. It begins with a description of the different forms of financial organization—proprietorship, partnership and the corporation—outlining the essential principles of sound financing. Various forms of security issues and the manner in which they may be combined as determined by the basis of capitalization of the particular enterprise comprises part 2, and part 3 treats of the methods of raising capital through the sale of securities and the usual forms of promotion and underwriting. Part 4 deals with financial management, investment of capital funds and proper management of capital and income, and part 5 is devoted to questions relating to financial mismanagement and irregularities and of the process of reorganization.

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Inquiries invited.

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SHIPBUILDING SITES,
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FACTORY SITES

**BALTIMORE FACTORY AND TERMINAL
SITES**—Statement of Asa G. Chandler, Presi-
dent The Coca-Cola Co.: "Investigation con-
vinced us that Baltimore is not only the
commercial metropolis for Southern trade,
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Wm. Martien & Co.,
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FOR SALE—I have some very fine sites
for any kind of factories, located in a spur
track between Rocky Mount and cotton mill,
situated between a negro and white settle-
ment; labor plentiful. Also plenty of land
for other buildings, residences. Prices rea-
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lots in three bodies or squares for a nicely-
located farm between three and eight miles
of town in white locality. Address R. D.
Trevathan, 708 Peach Tree St., Rocky
Mount, N. C.

INDUSTRIAL PLANTS FOR SALE

FOUNDRIES AND MACHINE SHOPS

FOR SALE—Well-equipped machine shop,
located on river in heart of Tampa. Great
interest now in shipbuilding. Good oppor-
tunity to right man. Good reasons for sell-
ing. C. H. Thompson, Winter Haven, Fla.

FOR SALE—Well-equipped foundry and
machine shop, located in North Alabama.
Property fronting 500 ft. on R. R. Will sell
plant as a whole or machinery and equip-
ment. Excellent location in town of 8000 to
10,000. For particulars address A. J. McGarry,
Howard, Ohio.

ROLLER FLOUR MILL

FOR SALE—To settle an estate, 30-barrel
roller flour mill, with 200-bushel burr corn
mill; good water-power; machinery and
equipment in good shape; good trade in
flour, meal and foodstuffs; excellent neigh-
borhood. About 140 acres good land. G. C.
Stone, Hurt, Va.

CARRIAGE AND BLACKSMITH PLANT

FOR SALE—Going, established plant;
two-story brick building, with modern car-
riage and blacksmith plant, doing \$20,000 to
\$25,000 annual business, established 16 years.
This is the chance of a lifetime for the
right man. Present owner is sick and must
go to higher altitude. For details write Roy
B. Nichols, Houston, Tex.

STONE CRUSHING PLANT

FOR SALE—Complete, well-equipped stone-
crushing plant in granite quarry, located on
main line prominent railroad; no haul; rail-
road siding to bins. Quantity of stone un-
limited. Splendid market for product. Own-
ers now have contract with railroad for ca-
pacity of plant. Good reasons for selling.
For further information, terms, etc., apply
E. E. Johnson, Culpeper, Va.

WOODWORKING PLANT

WOODWORKING PLANT
For sale, complete in running order, or will
sell machinery alone. Berlin machines. Gen-
eral Electric motors. American blower sys-
tem. Brick buildings. On railroad in South-
ern tidewater city of one hundred thousand.
Suitable also for manufacturing army or
navy materials. Correspondence invited. Ad-
dress No. 3096, care Manufacturers Record.

MANUFACTURING PLANT

AN excellent opportunity to buy a real
good manufacturing plant at a splendid bar-
gain. Address No. 4000, care Manufacturers
Record, Balto., Md.

FLOUR MILL

FOR SALE—Splendid 150-bbl. flour mill in
finest wheat section of South Dakota. New,
perfectly equipped, all modern appliances.
Meal and feed departments best in State.
Best markets. Owner's interests in Okla-
homa. \$30,000. Some exchange considered.
Full details. Caldwell, Knoxville, Tennessee.

INDUSTRIAL PLANTS FOR SALE

WOODWORKING PLANT AND BRICK YARD
AUCTION SALE JUNE 6.—One up-to-date
woodworking and furniture factory; also
two brick yards, electrically equipped, with
daily capacity of 40,000 each. For full par-
ticulars address S. P. Woodcock & Co.,
Salisbury, Md.

IRON, BRONZE AND WIRE WORK

FOR SALE—Iron, bronze and wire works;
plant running full time on good-paying or-
ders; needs experienced manager and some
new capital. Address W. E. McClamrock,
V.-Pres., Jackson, Tenn.

EMPLOYMENT AGENCIES

WE FURNISH laborers, any amount, to
industries. Also high-grade technical, exe-
cutive and clerical help. Orders are filled
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Write or wire us. 20th Century Employment
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MEN WANTED

IF ACTUALLY QUALIFIED for salary
between \$2500 and \$5000, communicate with
undersigned, who will negotiate strictly con-
fidential preliminaries for such positions;
executive, administrative, technical, profes-
sional; all lines. Not an employment agency;
undersigned acts in direct confidential ca-
pacity, not jeopardizing present connections.
Established 1910. Send name and address
only for explanatory details. R. W. Bixby,
El Niagara Square, Buffalo, N. Y.

WANTED—Syndicate of Business men wish
to communicate with thoroughly experienced,
practical brick and drain tile man, who
would be competent to manage plant now
built but not in operation. Person acceptable
would be required to make small investment.
Good opportunity for one who knows the
business and is a hustler. Address No. 3093,
care Manufacturers Record, Balto., Md.

WANTED—Four or five hustling stock
salesmen. A bona fide proposition, some-
thing of merit and appeals to the investor.
H. E. Hand, Orlando, Florida.

SITUATIONS WANTED

OFFICE MANAGER, credit man and ex-
ecutive desires position. College and law
training, with experience prominent corpora-
tions. Married; age 40; habits and health
good; substantial recommendations. No. 4005,
care Manufacturers Record, Balto., Md.

WANTED POSITION by an experienced
millwright; 10 years' erecting and operating
various kinds of machinery. Address No.
4001, care Manufacturers Record, Balto., Md.

PRACTICAL shipbuilder open for engage-
ment. Capable of managing large yard. At
present employed. Correspondence invited.
Address No. 3099, care Manufacturers Record.

OFFICE EQUIPMENT

BARGAINS.

Adding machines, calculating machines,
duplicating machines, rotary mimeographs,
addressing machines, check writers, envelope
sealers, etc. All makes, new, used and re-
built. Every machine guaranteed in perfect
mechanical order. Collins & Co., 1324 Arch
St., Philadelphia, Pa.

MACHINERY AND SUPPLIES

CORLISS ENGINE

FOR SALE—One 22-hp Cooper Corliss en-
gine, cylinder rebored, new head, rings and
rod, valves reworked, thoroughly overhauled;
A-1 condition, guaranteed. A bargain. By
Mecklenburg Iron Works, Charlotte, N. C.

KEG STAVE MILL OUTFIT

FOR SALE—Keg stave mill outfit com-
plete, in good condition. Camp Manufac-
turing Company, Franklin, Va.

MACHINERY and SUPPLIES WANTED

MILLING EQUIPMENT

WANTED—Prices on second-hand six or
eight-foot Hardinge mill and cypress tank
twenty-two feet in diameter, also the smaller
machines necessary for installation of 100-
ton flotation unit. Address Mill, Box 374,
Raleigh, N. C.

MOTOR

WANTED—A. C. induction motor, 25 to 250
H. P., 440-volt, 3-phase, 60 cycles, with a
starting compensator provided with overload
trip and no voltage release. United Poca-
hontas Coal Company, Crumpler, W. Va.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close June 25, 1917.

PROPOSALS FOR STRUCTURAL STEEL. Pig-Iron, Pig-Lead, Pig-Aluminum, Ferro-silicon, Wire Rope, Bolts, Nuts, Nails, Staples, Screws, Brass, Copper, Copper Tubing, Condenser Tubes, Electric Wire, Tacks, Valves, Hose Nozzles, Electric Fixtures, Electric Fittings, Flexible Joints, Pipe Fittings, Kalamath Doors, Cotton-Waste Machines, Washing Machines, Platform Scales, Tallow Pots, Spading Forks, Rules, Spectacles, Manila Rope, Twine, Hose, Packing, Gaskets, Pipe Covering, Tile, Paper Clips, Memorandum Books, Paper, Glue, Sal Soda, Caustic Soda, Coal Tar, Foundry Clay, Silica, Sand, Silica Wash, Carbon Bisulphide, Lime, Rock Salt, Foundry Flour, Putty, Muriatic Acid, Sulphuric Acid, Cresosote Oil, Linseed Oil, Turpentine, Turpentine Substitute, Paint Drier, White Zinc, White Lead, Red Lead, Paints, Varnish, Shellac, Litharge, Lumber, and Spud Timbers. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A. M. June 25, 1917, at which time they will be opened in public, for furnishing the above-mentioned articles. Bids and information relating to this Circular (No. 1148) may be obtained from this office or the offices of the Assistant Purchasing Agents, 21 State Street, New York City; Audubon Building, New Orleans, La.; and Fort Mason, San Francisco, Cal.; also from the United States Engineer Offices in the principal cities throughout the United States. **EARL L. BROWN**, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Bids close June 28, 1917.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., May 31, 1917. Sealed proposals will be opened in this office at 3 P. M. June 28, 1917, for the construction of the United States postoffice at Prescott, Arkansas. Drawings and specifications may be obtained from the custodian of the site at Prescott, Arkansas, or at this office, in the discretion of the Acting Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close June 28, 1917.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., May 28, 1917. Sealed proposals will be opened in this office at 3 P. M. June 28, 1917, for a new heating system, plumbing repairs, etc., in the United States Marine Hospital at Portland, Me., in accordance with the drawings and specifications, copies of which may be had at this office or at the office of the custodian, Marine Hospital at Portland, Me., in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close July 2, 1917.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., June 5, 1917. Sealed proposals will be opened in this office at 3 P. M. July 2, 1917, for alterations to heating in the U. S. custom-house, etc., at Detroit, Michigan, in accordance with the drawing and specification, copies of which may be had at this office or at the office of the custodian at Detroit, Michigan, in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close July 2, 1917.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., June 1, 1917. Sealed proposals will be opened in this office at 3 P. M. July 2, 1917, for resetting four boilers and furnishing and installing steam-flow meters, feed-water regulators, etc., in the United States postoffice and courthouse at Kansas City, Mo., in accordance with the drawing and specification, copies of which may be had at this office or at the office of the custodian, Kansas City, Mo., in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close June 21, 1917.

\$50,000 Schoolhouse Bonds
\$75,000 City Hall and Market-house Bonds
\$11,000 Sewer Bonds

City of Johnson City, Tenn.

Sealed bids will be received by the undersigned for the Board of Mayor and Aldermen until 7 P. M. Thursday, June 21, 1917, for the purchase of \$50,000 5 per cent. 20-year Schoolhouse Bonds, dated June 1, 1917, interest (coupon) payable semi-annually.
\$75,000 5 per cent. 20-year Courthouse and Market Bonds, dated June 1, 1917, interest (coupons) payable semi-annually. Principal and interest payable at Hanover National Bank, New York City.

\$11,000 Sewer Bonds, short term.
Each bid must be accompanied by a certified check upon a national bank for 2½ per cent. of amount of bid under the city's usual conditions. The right to reject any or all bids is reserved.
Ask for financial statement. Mail bids will be most carefully safeguarded and will have fullest consideration.

W. E. HATCHER,
City Treasurer.

PROPOSAL ADVERTISING INFORMATION

RATE: 25 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—25 cents per line per insertion.

Bids close June 19, 1917.

\$100,000 5% Bonds

MECKLENBURG COUNTY, NORTH CAROLINA, BRIDGE BONDS.

The Board of Commissioners of Mecklenburg County, North Carolina, will receive bids at the office of the undersigned in Charlotte, N. C., until 12 o'clock M. June 19, 1917, and will then open the same, for the purchase of One Hundred Thousand (\$100,000) Dollars 5 per cent. coupon bridge bonds of Mecklenburg County, registerable as to principal, dated July 1, 1917, principal and semi-annual interest payable at the United States Mortgage and Trust Company, in the City of New York, State of New York (or such other place as may be mutually agreed upon between said Board and the purchaser of said bonds); denomination One Thousand (\$1,000) Dollars, maturing Ten Thousand (\$10,000) Dollars annually on the first day of July of each year, from 1918 to 1921, both inclusive, and Fifteen Thousand (\$15,000) Dollars each year from the year 1922 to 1925, both inclusive.

"By law and a resolution of the Board of Commissioners of said county, an unlimited special tax has been provided for the payment of the principal and interest when due. Bonds will be prepared under the supervision of the United States Mortgage and Trust Company, in the City of New York (or such other company as may be mutually agreed upon between this Board and the purchasers of said bonds, whose favorable opinion will be furnished to the purchaser without charge. All bids must be upon blank forms which, together with other information, will be furnished by the undersigned, and must be accompanied by a certified check upon a national bank, or upon a bank or trust company in North Carolina, for Twenty-five Hundred (\$2500) Dollars. No bid for less than par value and accrued interest will be received. Bonds will be delivered in Charlotte, Cincinnati, Baltimore or New York, at purchaser's option, on August 1, 1917, unless an earlier date shall be agreed upon with the purchaser. The right to reject any and all bids is expressly reserved.

A. M. McDONALD,
Chairman Board of Commissioners of
Mecklenburg County, North Carolina,"
D. M. ABERNETHY, Clerk.

Bids close June 26, 1917.

\$195,000 5% Bonds

Sealed bids will be received by the undersigned until 12 o'clock noon June 26, 1917, for \$195,000 5 per cent. "General Improvement and Paving Bonds."

Said bonds to be dated January 1, 1917, in denominations of \$500, bearing interest from date at the rate of 5 per cent. per annum, payable annually on January 1 of each year, and shall be payable to bearer at the office of the Treasurer of the City of Martinsburg, thirty-four years after date, and redeemable at any time after twenty years.

Bids must be accompanied by a certified check payable to the City of Martinsburg, W. Va., for 5 per cent. of the amount of each bid submitted. No bids will be accepted for less than par and accrued interest. The right to reject any and all bids is reserved by the Commissioners.

JNO. T. NADENROTSCH, Secretary,
Commissioners of the City of Martinsburg.

Bids close June 19, 1917.

\$75,000 5% Bonds

The Board of Supervisors of Allen Parish (County), Louisiana, Road District Number Two (2), will open sealed bids at ten o'clock A. M. June 19, 1917, for \$75,000 five (5%) per cent. semi-annual interest twenty-year bonds. Maturities serial, one to twenty years. New York payment. Certified check for 2½ per cent. of face value of bonds to accompany bid. Purchaser to furnish blank bonds at his expense. Delivery will be facilitated by

shipment of bonds by express to satisfactory bank in reserve city, the purchaser to pay express and exchange charges. The bonds are offered subject to opinion of Wood & Oakley, Chicago, whose preliminary approving opinion is now in hand. Full data will be furnished on application to **G. M. King, Jr.**, Secretary-Treasurer, Kinder, Louisiana. The right is reserved to reject any or all bids.

Bids close June 26, 1917.

Reinforced Concrete Bridge

Notice is hereby given that the County Court of Fayette County, W. Va., and the County Court of Nicholas County, W. Va., will meet in joint session at Belva, on the line between the two counties, at 10 A. M. June 26, 1917.

Then and there, until 12 M., they will receive sealed proposals for the construction of a reinforced concrete arch bridge over Twenty Mile on the line between the two counties.

Said arch will consist of two 55-ft.-clear spans with 10-ft.-clear roadway and four 20-ft. wings.

Clear height from extreme low water to the underside of the arch 11 ft., and depth from low water to base of all foundations 5 ft.

Capacity of bridge one 20-ton roller.

An extra price should be given for added or deducted concrete.

The Courts reserve the right to reject any and all bids.

By **R. J. STEGALL**,
County Clerk of Fayette County.

By **P. N. WISEMAN**,
County Clerk of Nicholas County.

Bids close June 19, 1917.

Steel Bridge

Pensacola, Fla.

Sealed proposals will be received by the Board of County Commissioners of Escambia County, Florida, up to 9 o'clock A. M. on the 19th day of June, 1917, and there publicly opened, for the following work:

The construction of a steel bridge over the Escambia River at Molino, Florida, with the necessary approaches, etc., to make a finished job, as shown on the plans and indicated in the specifications on file in the office of the Clerk Circuit Court.

A certified check for 5 per cent. of the amount bid must accompany each bid. A surety bond in the sum of 20 per cent. of the contract price will be required of the successful bidder.

Plans and specifications may be had on application to **Jas. Macgibbon**, Clerk Circuit Court. The Board reserves the right to reject any or all bids.

All bids must be submitted on plans and specifications on file with the Clerk. No alternate plans or bids will be considered.

J. GEO. WHITE,
Chairman Board County Commissioners,
GEO. ROMMEL, JR.,
Engineer.

Bids close June 27, 1917.

Steel Bridges

Brownsville, Tenn., May 31, 1917.

We will, on Wednesday, June 27, at 10 o'clock A. M., in Brownsville, Tenn., let the contract for furnishing all material and erecting two Steel Bridges across the new Forked Deer River Canal in Haywood County, Tenn. Bidders to submit design with bid. All bids to be accompanied by a certified check or a bidder's bond in some reputable surety company for \$500.

Successful bidder to enter into bond in the penal sum of 25 per cent. of his bid for the completion of contract.

The right to reject any and all bids is reserved.

JAS. TIPTON, Chairman;
T. J. CASTELLAW,
W. T. CURRIE,
Committee.

D. MERIWETHER,
Engineer,
Jackson, Tenn.

Bids close June 18, 1917.

Steel Bridge

Sealed bids will be received until 12:30 o'clock P. M. June 18, 1917, by the Boards of County Commissioners of Forsyth and Yadkin Counties, assembled in the Court House at Winston-Salem, N. C., on the construction of a steel bridge, with concrete masonry, over the Yadkin River, near Donaha, N. C.

Each bidder will be required to file with his bid a certified check in the sum of \$1000, which will become a forfeit to Forsyth and Yadkin Counties, N. C., if contract is not entered upon and bond executed promptly after the award.

The successful bidder will be required to file a satisfactory guaranty company's bond in the sum of \$8000 to save harmless the Counties of Forsyth and Yadkin, N. C., from loss due to suits or other actions for damages arising out of the work and to guarantee faithful compliance with the contract.

Plans and specifications may be seen at the office of the Clerk of the County Board, Winston-Salem, N. C.

The Boards of Commissioners especially reserve the right to reject any or all bids.

G. W. MANLIN,
Chairman County Commissioners
Forsyth County,
S. L. DOTY,
Chairman County Commissioners
Yadkin County.

J. M. LENTZ,
Clerk.

J. N. AMBLER,
Consulting Engineer.

Bids close July 2, 1917.

Highway

Sealed proposals, addressed to the County Commissioners of Frederick County, and indorsed "Proposals for building a section of State-aid highway in Frederick county," upon or along the Lewistown-Creagerstown road between Lewistown and Creagerstown, for a distance of about 4.38 miles, will be received by the County Commissioners of Frederick County at their office in Frederick City, Md., until 1 o'clock P. M. on the second day of July, 1917, and at that time and place will be publicly opened and read.

All bids must be made upon blank forms to be obtained of the State Roads Commission at its office, 601 Garrett Building, Baltimore, Md., must give the prices proposed both in writing and in figures, and must be signed by the bidder, with his address.

Each bid is to be accompanied by a certified check for two hundred dollars (\$200), payable to the County Commissioners of Frederick County, said check to be returned to the bidder unless he fails to execute the contract should it be awarded to him.

Plans can be seen and forms of specification and contract may be obtained on cash payment of one dollar (\$1) at the office of the State Roads Commission, Baltimore, Md.

The County Commissioners of Frederick County reserve the right to reject any and all proposals.

By order of the County Commissioners,
F. M. STEVENS,
President.

H. L. GAVER, Clerk.

Bids close June 19, 1917.

Street Improvements

Clinton, N. C.

Sealed proposals for constructing Street Improvements in the Town of Clinton, N. C., will be received by the Mayor and Board of Commissioners until 12 o'clock noon on the 19th day of June, 1917.

The work will consist of approximately 11,000 square yards of Sheet Asphalt, or other pavement on a concrete base, or of Concrete Pavement, together with the necessary curbing, gutters, etc.

Blank forms of proposal and specifications may be obtained from the Engineer. Plans are on file with the Town Clerk. Certified check for five per cent. (5%) of the bid is to accompany the proposal.

The right is reserved to reject any or all bids.

H. A. GRADY,
Mayor,
H. A. JAMES,
Clerk.

Engineer:
WM. M. PIATT,
Durham, N. C.

Bids close June 16, 1917.

Road Construction

Until 12 o'clock noon on June 16 the County Court will receive proposals at Kingwood, W. Va., for the construction of the following roads in Portland District: Corinth Road, No. 1, from end of brick at Terra Alta to the Maryland line, 3.9 miles of 15-ft. concrete road; Kingwood Road, No. 3, from the end of brick at Terra Alta to the Caddell Bridge, 6.9 miles of 15-ft. concrete road; St. Joe-Brandonville Road, No. 2, from Pleasant District line through Albright and St. Joe to Caddell Bridge, 5.7 miles of 15-ft. concrete road; alternate route, Terra Alta-St. Joe Road from end of brick at Terra Alta to St. Joe, 6 miles of 15-ft. concrete road.
For further information, address County Clerk or **H. E. Wilhelm**, Dist. Engineer, Kingwood, W. Va.

PROPOSALS

SEWERS WATER-WORKS ELECTRIC LIGHT PLANTS BRIDGES

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close June 28, 1917.

Highway Work

Public notice is hereby given, as provided by Act No. 183 of the Acts of the General Assembly of the State of Louisiana for the year 1914, as amended by Act No. 199 of the Acts of the General Assembly of the State of Louisiana for the year 1916, that bids will be received at the office of the Board of Supervisors of Road District No. 2 of the Parish of Allen, State of Louisiana, in the Calcasieu National Bank of Southwest Louisiana Building at Kinder, Louisiana, at 10 o'clock A. M. on the 28th day of June, A. D. 1917.

Notice is also given that the bids received upon said date will be opened and publicly read by said Board of Supervisors in their office on the 28th day of June, A. D. 1917, at 10 o'clock A. M.

The character and extent of the work to be covered by said bids will consist of dredging, grading, grubbing, clearing, draining, bridging and constructing all of the proposed new highway work shown on the index maps of the said Road District No. 2, Parish of Allen, and more fully and definitely illustrated on the corresponding location and profile maps and detail drawings now in the possession of the Secretary of said Board at Kinder, and also of W. L. Stevens, 312 Whitney-Central Bank Building, New Orleans, La.

These highways lead from Kinder to Calcasieu River, 120 stations, designated as Division A; Kinder to Lauderdale, 271.62 stations, designated as Division B; Kinder to Jefferson Davis Parish Line, 210 stations, designated as Division C; Kinder to Oberlin Ward Line, 399.73 stations, designated as Division D; Kinder to Indian Village, 501.8 stations, designated as Division E; Road No. 1, 182.86 stations; Road No. 2, 210 stations; Road No. 3, 154.64 stations, designated as St. Elmo District.

A separate bid must be made on each of the above divisions and upon each separate road in the St. Elmo District, and on the bridge and culvert work in each division, and each road in the St. Elmo District.

Every bid shall be accompanied by a certified check of the bidder in an amount equal to five per cent. (5%) of the total amount of the bid, which check will be forfeited to the Road District should the bidder to whom the contract is awarded fail to enter into the contract required within ten days after notice to do so from said Board of Supervisors. The checks of all unsuccessful bidders will be returned after the contract is awarded.

All bids submitted shall be addressed to the Board of Supervisors of Road District No. 2 of the Parish of Allen.

The right to reject any and all bids is hereby reserved by said Board of Supervisors.

The successful bidder will be required to furnish bond as provided by law. Detailed information and specifications can be obtained from W. L. Stevens, Architect and Engineer, 312 Whitney-Central Bank Building, New Orleans, La.

Board of Supervisors.
By L. W. MANUEL,
President.

Attest:
GEORGE M. KING, JR.,
Secretary.

Bids close June 12, 1917.

Road Improvement

STATE OF MARYLAND.
STATE ROADS COMMISSION.
NOTICE TO CONTRACTORS.

Sealed proposals for the following:

Contract No. W-16, WASHINGTON AND FREDERICK COUNTIES.—Grading and draining Harper's Ferry Road—Knoxville to Harper's Ferry, 3.51 miles.

Contract No. W-17, WORCESTER COUNTY.—Grading and draining Pocomoke to Stockton Road, 2.15 miles.

Contract No. Co-9, CAROLINE COUNTY.—Building one section of road through Greensboro, about .65 of a mile in length. (Concrete.)

Contract No. T-11, TALBOT COUNTY.—Building one section of road from Claiborne to St. Michaels, about 4.63 miles in length. (Concrete.)

Contract No. 049-E, CECIL COUNTY.—Building two sections of gravel roadway between Northeast and Elkton, 0.38 and 0.57 miles in length, to be surfaced with concrete.

UNDER FEDERAL AID ACT.
Contract No. P-16, PRINCE GEORGE'S COUNTY.—Building one section of Defense Highway from Bladensburg toward Annapolis, about 3.25 miles in length.

Contract No. F-29, FREDERICK COUNTY.—Building one section of road from end of Buckystown Turnpike south, about 2.01 miles in length.

Will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 12th day of June, 1917, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of \$1, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.
By order of the State Roads Commission this 25th day of May, 1917.

FRANK H. ZOUCK,
Chairman.

CLYDE H. WILSON,
Secretary.

Bids close June 21, 1917.

Street Improvements

Griffin, Ga.

Proposals will be received by the Mayor and Council of Griffin, Ga., until eleven (11) o'clock A. M. on Thursday, the twenty-first of June, 1917, for grading, curbing, draining and paving certain streets with either vitrified brick, asphalt, concrete, or bituminous concrete, and for grading and laying concrete on certain sidewalks.

The street-paving work will include approximately the excavating of twenty-one thousand (21,000) cubic yards of earth, and the furnishing and setting of forty-three thousand (43,000) lineal feet of granite curb, the construction of catch-basins and storm drains, and the furnishing and laying of approximately sixty thousand (60,000) square yards of street pavement; also, the grading and laying of sidewalks where directed, with all the necessary work incident thereto, as called for by the plans, profiles and specifications.

Bidders must use the printed forms accompanying specifications. A certified check, payable to the Mayor, for five (5) per cent. of the amount of the bid must accompany each proposal as a guarantee that the contract will be entered into if awarded. An acceptable surety bond for fifty (50) per cent. of the contract cost will be required. A five-year maintenance bond for twenty-five (25) per cent. of the contract cost will be required to guarantee the street pavement against defects. Payment will be in cash for eighty-five (85) per cent. of monthly estimates.

Plans and specifications may be seen at the office of the City Clerk in Griffin, Ga., and copies of specifications may be obtained from Solomon-Norcross Company, Engineers, 1625 Candler Building, Atlanta, Ga., by depositing check for ten (\$10) dollars, payable to the engineers, to be held until their return. Blueprints may be had at the cost of the printing.

The city reserves the right to reject any and all bids.

J. WOODS HAMMOND, Mayor,
Griffin, Ga.
SOLOMON-NORCROSS COMPANY,
Engineers, 1625 Candler Bldg.,
Atlanta, Ga.

Bids close June 26, 1917.

Metal Surface Roads

Bids will be received by the Board of Supervisors of Acadia Parish, Louisiana, for the construction of approximately seventy miles of metal surface roads, according to plans and specifications now on file with the Secretary of the above-named Board. Bids will be received until noon June 26, 1917, at Crowley, Louisiana.

Notice to Architects

In pursuance of an act passed at the last session of the General Assembly, entitled "An Act to Define the Qualifications for the Practice of Architecture in the State of South Carolina, and to Provide for the Examination and Registration of Architects," approved February 17, 1917, the State Board of Architectural Examiners of South Carolina will convene at the office of the Chairman, 1404 Palmetto Building, in Columbia, S. C., on Monday, July 2, 1917, at 10 o'clock, for the consideration of applications of all architects desiring to practice architecture in this State.

Detailed information may be obtained from the Secretary of the Board.

(Signed) C. C. WILSON,

Chairman;
GEORGE E. LAFAYE,
Secretary,
Columbia, S. C.

Bids close June 25, 1917.

Drainage Ditches

Wilmington, N. C.

Sealed bids will be received by the Board of Drainage Commissioners of New Hanover County Drainage District No. 3 until noon June 25, 1917, for constructing nine miles of drainage ditches. Plans and specifications may be secured from the Engineer by enclosing check to him for \$2.50.

The right is reserved to reject any or all bids.

J. L. BECTON,
Engineer.
W. E. PRICE,
Chairman.

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